

# Analysing the antecedents of graduate labour immobility in South Africa

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requirements for the degree *Doctor of  
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University

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## DECLARATION

I, Abigail Stiglingh-Van Wyk, hereby declare that this thesis with the registered title:

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is my own work.

I further declare that:

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5. In addition, I further declare that the content of this research study was not and will not be submitted for any other qualification at any other tertiary institution in the future.



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SIGNATURE

27 November 2023

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I, the promoter (Prof Diana Viljoen-Bezuidenhout) and co-promoter (Prof Elsabé Keyser), confirm that the above declaration signed by the candidate is accurate to the best of our knowledge and that we have received a satisfactory similarity report from Turnitin before allowing the candidate to submit for examination.



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Promoter of student

Prof. Diana Viljoen-Bezuidenhout

27 November 2023



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Co-promoter of student

Prof. Elsabé Keyser

27 November 2023

## AUTHORS' CONTRIBUTIONS AND DECLARATIONS

This research study was designed and carried out by three researchers at North-West University, Vanderbijlpark Campus. In the table below, the contributions of each researcher are indicated.

Abigail Stiglingh-Van Wyk, Student	PhD in Economics student, co-conceptualiser, responsible for the literature review, conducting the research process, interpreting the research findings and data, as well as writing the research proposal and thesis.
Prof. Diana Viljoen-Bezuidenhout, Promoter	Chapters 1-5: Critical reader and adviser  Article 1: The screening of titles and abstracts, as well as the selection of research articles, were executed independently by two reviewers (the researcher and the promoter) against the proposed inclusion and exclusion criteria.
Prof. Elsabé Keyser, Co-promoter	Chapters 1-5: Critical reader and adviser  Controller of the quantitative research process and critical reader.

Furthermore, with this statement, the author and co-authors declare and confirm their roles in this research study. This declaration also indicates that all authors agree that the appropriate format was used for the submission of this thesis at the North-West University. All authors agree that the contents of this research study and any modified version thereof may be used and publicised by an author in peer-reviewed academic journals and/or presented at academic conferences.

Mrs Abigail Stiglingh-Van Wyk, Student

Prof. Diana Viljoen-Bezuidenhout, Promoter

Prof. Elsabé Keyser, Co-promoter

## DEDICATION

*This thesis is dedicated to my husband, son and family, and my beloved late parents,*

*Jan Stiglingh & Jane Stiglingh*

*(08/12/1960 – 16/01/2014 & 24/03/1955 – 15/03/2021)*

*Pappi and Ma thank you for all you've taught me throughout the years, all the sacrifices but most of all your prayers that kept me going. Thank you for being my number one support system when I needed it the most. Thank you for believing in me when I doubted myself so many times. I hope this makes you proud.*

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*Joshua 24:15*

*“As for me and my house household, we will serve the Lord.”*

## PREFACE

The reader is reminded of the following:

- The editorial style of the chapters of this thesis follows the format prescribed by the School of Economics of the North-West University.
- The references and page numbers in this thesis follow the format prescribed by North-West University, Harvard referencing guide and MS Word postgraduate and proposal template for creating a thesis.
- The thesis is submitted in the form of Chapter 1 (Introduction and background of the study; Chapter 2 (Scope of literature review); Chapter 3 (Theoretical and conceptual overview of labour market integration); Chapter 4 (Methodology); Chapter 5 (Data analysis – Quantitative); Chapter 6 (Data analysis – Qualitative and mixed method); and lastly Chapter 7 which consists of the Conclusion and Recommendations.
- References at end of study.

Two manuscripts that comprise this research have been/will be submitted to the following peer-reviewed journals for publications and peer-reviewed conferences.

Manuscript 1: Scope of literature review on labour immobility, graduates and factors.

Manuscript 2: Analysing of the factors that influence graduate relocation immobility.

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*Psalms 46:5*

*God Is Within Her, She Will Not Fail*

## **ABSTRACT**

Globally, labour markets are changing at a rapid pace, which has resulted in a decrease as seen in the percentage of employment and stable work conditions. Labour markets play a critical role in the global economy, serving as the mechanism through which individuals offer their skills and services in exchange for employment opportunities. The dynamics of labour markets are influenced by a variety of factors, including economic conditions, technological advancements, government policies, and demographic trends. This wave of change has also affected South Africa, where non-standard employment, such as casual and part-time labour, has increased in addition to the nation's high unemployment rate among youth and graduates as well as the national level by international standards. Higher education qualification has, however, also shown to be no longer a guarantee of employment, much less safe, permanent, and full-time work. With education, skills, and the potential to support the expansion and development of specific sectors and nations, graduate labour immobility offers a valuable human resource pool in today's knowledge-based and fiercely competitive economy. However, the issue is that graduate labour immobility has also had an adverse effect on the economic development of other nations, including South Africa. This is evident in the country's high unemployment rate, which stood at 32.6 percent in the second quarter of 2023. Graduates frequently still struggle to find appropriate work prospects that align with their abilities and future objectives, despite the growing importance of continuing education and skill acquisition.

Chapters two and three in this thesis aim to provide a detailed analysis of the antecedents of graduate labour immobility in South Africa, with a specific focus on understanding the antecedent (factors) that contribute to this phenomenon. The study explores various dimensions such as economic, social and individual antecedents (factors) that influence graduates' decisions to remain geographically immobile in their job search and employment choices. Graduate labour immobility in South Africa is a multifaceted phenomenon influenced by various antecedents, encompassing geographical, occupational, and skills-related dimensions. By examining these antecedents comprehensively, policymakers and stakeholders can gain valuable insights into alleviating graduate labour immobility and promoting overall economic development. Furthermore, to predict the potential antecedents that may contribute to labour immobility in South Africa, a multifaceted analysis is crucial. Several key factors could play a significant role in shaping the labour landscape of the country. Economic conditions, such as unemployment rates, income inequality, and the overall health of the job market, would undoubtedly be pivotal elements. Additionally, examining the educational system and its alignment with the demands of the labour market can provide insights into the employability of the workforce. Social factors,

including cultural norms, migration patterns, and demographic shifts, may also influence labour immobility. Political considerations, such as government policies, labour laws, and the regulatory environment, should not be overlooked. Moreover, exploring technological advancements and their impact on job automation and skill requirements is essential in understanding the future dynamics of the labour market.

Chapter four consists of the research methodology utilised in the study, which employs a mixed-method approach, combining quantitative data analysis and qualitative exploration through participant interviews, to comprehensively examine the factors contributing to graduate labour immobility in the South African context. Key components include socio-economic factors, labour market integration, and the perceptions of graduates regarding their mobility within the workforce.

Chapter five consists of the quantitative phase of this research, which involved the development and distribution of a structured questionnaire to a diverse sample of graduates across South Africa. The survey aimed to gather quantitative data on the extent and nature of graduate labour immobility, examining variables such as geographical immobility, occupational immobility, and skills immobility. Statistical analyses, including regression models and correlation studies, were employed to identify significant patterns and relationships within the data. Simultaneously, Chapter six consists of the qualitative phase of the study which gathered data through in-depth interviews with 21 participants, each holding a degree in South Africa. These interviews delved into the subjective experiences and perceptions of graduates, considering the nuanced aspects of labour immobility. Thematic analysis of qualitative data was undertaken to extract rich insights into the underlying factors shaping graduate labour mobility decisions.

The findings from the mixed-methods approach revealed a complex interplay of antecedents influencing graduate labour immobility in South Africa. Geographical immobility was influenced by antecedents (factors) such as family ties, housing affordability, and regional economic disparities. Occupational immobility was found to be closely tied to industry-specific demands and career advancement opportunities, while skills immobility was influenced by mismatches between educational qualifications and job requirements. Socio-economic factors emerged as significant determinants of graduate labour immobility, with economic conditions, employment opportunities, and government policies playing pivotal roles. The study underscores the importance of a holistic understanding of the socio-economic landscape in shaping graduate perceptions and decisions related to labour mobility.

In conclusion, this research contributes to the existing literature on graduate labour immobility by employing a mixed-methods approach that combines quantitative and qualitative analyses. The integration of diverse data sources provides a nuanced understanding of the antecedents of

graduate labour immobility in South Africa, shedding light on the intricate interplay of geographical, occupational, and skills-related factors. The implications of these findings extend to policymakers, educators, and employers, offering valuable insights for the development of strategies to enhance labour market integration and mitigate barriers to graduate mobility in South Africa.

**Keywords:** *Antecedents, graduates, labour immobility, labour market integration, mixed method, socioeconomics, South Africa*

## OPSOMMING

Wêreldwyd verander arbeidsmarkte in 'n vinnige pas, wat gelei het tot 'n afname soos gesien in die persentasie indiënsneming en stabiele werksomstandighede. Arbeidsmarkte speel 'n kritieke rol in die globale ekonomie en dien as die meganisme waardeur individue hul vaardighede en dienste aanbied in ruil vir werksgeleenthede. Die dinamika van arbeidsmarkte word beïnvloed deur 'n verskeidenheid faktore, insluitend ekonomiese toestande, tegnologiese vooruitgang, regeringsbeleid en demografiese tendense. Hierdie golf van verandering het ook Suid-Afrika geraak, waar nie-standaard indiënsneming, soos toevallige en deelydse arbeid, toegeneem het benewens die land se hoë werkloosheidsyfer onder jeug en gegradueerdes sowel as die nasionale vlak volgens internasionale standaarde. Hoër onderwys het egter ook getoon dat dit nie meer 'n waarborg vir werk is nie, nog minder veilige, permanente en voltydse werk. Met onderwys, vaardighede en die potensiaal om die uitbreiding en ontwikkeling van spesifieke sektore en nasies te ondersteun, bied gegradueerde arbeidsonbeweeglikheid 'n waardevolle menslike hulpbronpoel in vandag se kennisgebaseerde en uiters mededingende ekonomie. Die kwessie is egter dat gegradueerde arbeidsonmobiliteit ook 'n nadelige uitwerking op die ekonomiese ontwikkeling van ander nasies, insluitend Suid-Afrika, gehad het. Dit is duidelik in die land se hoë werkloosheidsyfer, wat in die tweede kwartaal van 2023 op 32,6 persent gestaan het. Gegradueerdes sukkel gereeld om toepaslike werksvooruitsigte te vind wat ooreenstem met hul vermoëns en toekomstige doelwitte, ten spyte van die toenemende belangrikheid van voortgesette onderwys en vaardigheidsverwerwing.

Hoofstuk twee en drie in hierdie tesis het ten doel om 'n gedetailleerde ontleding te verskaf van die voorgange van gegradueerde arbeidsimmobiliteit in Suid-Afrika, met 'n spesifieke fokus op die begrip van die faktore wat bydra tot hierdie verskynsel. Die studie ondersoek verskeie dimensies soos ekonomiese, sosiale en individuele faktore wat gegradueerdes se besluite beïnvloed om geografies onbeweeglik te bly in hul werksoek en werkskeuses. Gegradueerde arbeidsonbeweeglikheid in Suid-Afrika is 'n veelvlakkige verskynsel wat deur verskeie antesedente beïnvloed word, wat geografiese, beroeps- en vaardigheidsverwante dimensies insluit. Deur hierdie antesedente omvattend te ondersoek, kan beleidmakers en belanghebbendes waardevolle insigte kry in die verligting van gegradueerde arbeidsonmobiliteit en die bevordering van algehele ekonomiese ontwikkeling. Verder, om die potensiele antesedente te voorspel wat kan bydra tot arbeidsonbeweeglikheid in Suid-Afrika, is 'n veelvlakkige analise van kardinale belang. Verskeie sleutelfaktore kan 'n beduidende rol speel in die vorming van die arbeidslandskap van die land. Ekonomiese toestande, soos werkloosheidsyfers, inkomste-ongelykheid en die algehele gesondheid van die arbeidsmark, sal

ongetwyfeld deurslaggewende elemente wees. Daarbenewens kan die ondersoek van die onderwysstelsel en die belyning daarvan met die eise van die arbeidsmark insig gee in die indiensneembaarheid van die arbeidsmag. Sosiale faktore, insluitend kulturele norme, migrasiepatrone en demografiese verskuiwings, kan ook arbeidsonbeweeglikheid beïnvloed. Politieke oorwegings, soos regeringsbeleide, arbeidswette en die regulatoriese omgewing, moet nie oor die hoof gesien word nie. Boonop is die verkenning van tegnologiese vooruitgang en die impak daarvan op werksoutomatisering en vaardigheidsvereistes noodsaaklik om die toekomstige dinamika van die arbeidsmark te verstaan.

Hoofstuk vier bestaan uit die navorsingsmetodologie studie wat 'n gemengde-metode-benadering gebruik, wat kwantitatiewe data-analise en kwalitatiewe verkenning deur middel van deelnemer-onderhoude kombineer, om die faktore wat bydra tot gegradueerde arbeidsonmobiliteit in die Suid-Afrikaanse konteks, omvattend te ondersoek. Sleutelkomponente sluit in sosio-ekonomiese faktore, arbeidsmarkintegrasie en die persepsies van gegradueerdes rakende hul mobiliteit binne die arbeidsmag.

Hoofstuk vyf bestaan uit die kwantitatiewe fase van hierdie navorsing wat die ontwikkeling en verspreiding van 'n gestruktureerde vraelys aan 'n diverse steekproef van gegradueerdes regoor Suid-Afrika behels. Die opname het ten doel gehad om kwantitatiewe data oor die omvang en aard van gegradueerde arbeidsonmobiliteit in te samel, deur veranderlikes soos geografiese onbeweeglikheid, beroepsimmobiliteit en vaardigheidsimmobiliteit te ondersoek. Statistiese ontledings, insluitend regressiemodelle en korrelasiestudies is aangewend om betekenisvolle patrone en verwantskappe binne die data te identifiseer. Terselfdertyd bestaan Hoofstuk 6 uit die kwalitatiewe fase van die studie wat data ingesamel het deur middel van in-diepte onderhoude met 21 deelnemers, elk met 'n graad in Suid-Afrika. Hierdie onderhoude het gedelf in die subjektiewe ervarings en persepsies van gegradueerdes, met inagneming van die genuanseerde aspekte van arbeidsonmobiliteit. Tematiese analise van kwalitatiewe data is onderneem om ryk insigte te onttrek in die onderliggende faktore wat gegradueerde arbeidsonmobiliteitsbesluite vorm.

Die bevindinge van die gemengde-metode-benadering het 'n komplekse wisselwerking van antesedente aan die lig gebring wat gegradueerde arbeidsonbeweeglikheid in Suid-Afrika beïnvloed. Geografiese onbeweeglikheid is beïnvloed deur faktore soos familiebande, bekostigbaarheid van behuising en plaaslike ekonomiese ongelykhede. Daar is gevind dat beroepsimmobiliteit ten nouste verband hou met bedryfspesifieke eise en loopbaanbevorderingsgeleenthede, terwyl vaardigheidsimmobiliteit beïnvloed is deur wanverhoudings tussen opvoedkundige kwalifikasies en posvereistes. Sosio-ekonomiese faktore het na vore gekom as beduidende determinante van gegradueerde arbeidsonmobiliteit, met

ekonomiese toestande, werkseleenthede en regeringsbeleide wat deurslaggewende rolle gespeel het. Die studie beklemtoon die belangrikheid van 'n holistiese begrip van die sosio-ekonomiese landskap in die vorming van gegradueerde persepsies en besluite wat verband hou met arbeidsmobiliteit.

Ten slotte dra hierdie navorsing by tot die bestaande literatuur oor gegradueerde arbeidsonbeweeglikheid deur 'n gemengde-metode-benadering te gebruik wat kwantitatiewe en kwalitatiewe ontledings kombineer. Die integrasie van diverse databronne verskaf 'n genuanseerde begrip van die voorgange van gegradueerde arbeidsonbeweeglikheid in Suid-Afrika, wat lig werp op die ingewikkelde wisselwerking van geografiese, beroeps- en vaardigheidsverwante faktore. Die implikasies van hierdie bevindinge strek tot beleidmakers, opvoeders en werkgewers, en bied waardevolle insigte vir die ontwikkeling van strategieë om arbeidsmarkintegrasie te verbeter en hindernisse tot gegradueerde mobiliteit in Suid-Afrika te versag.

**Sleuteltermes:** Antesedente, gegradueerdes, arbeidsonbeweeglikheid, arbeidsmarkintegrasie, gemengde metode, sosio-ekonomie, Suid-Afrika

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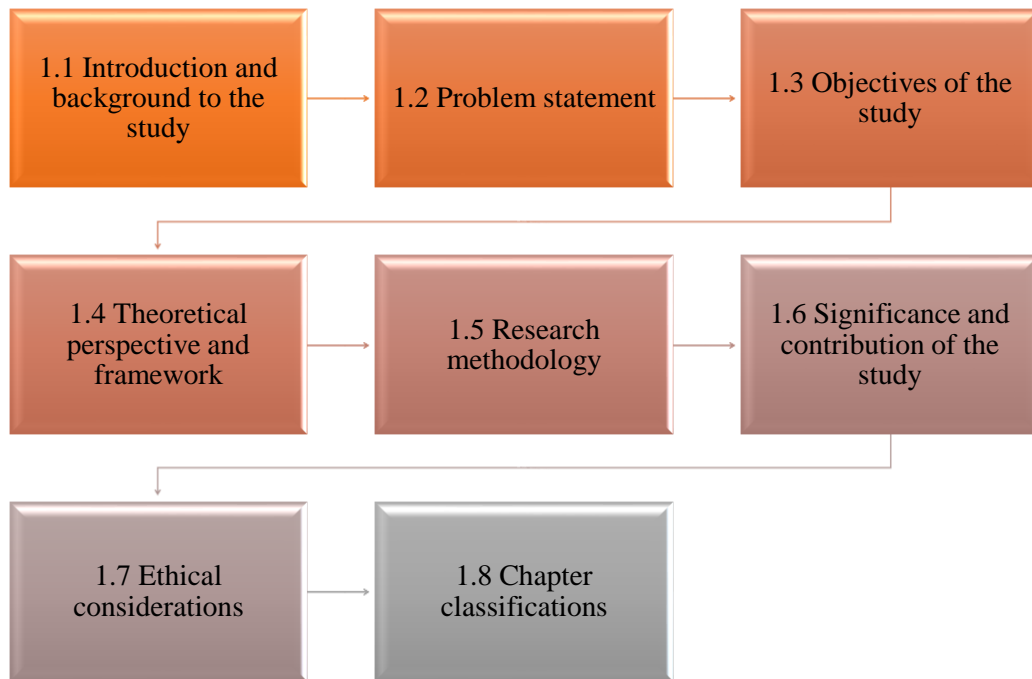
DOL	Depart of Labour
EFA	Explanatory Factor Analysis
EFA	Exploratory Factor Analysis
EU	European Union
GDP	Gross Domestic Product
HDI	Human Development Index
HEI	Higher Education Institution
ILO	International Labour Organisation
IMF	International Monetary Fund
NDP	National Development Plan
NEG	New Economic Geography
OCS	Occupational Composition Scale
OECD	Organisation for Economic Cooperation and Development
PwC	Price Waterhouse Coopers
QLFS	Quarterly Labour Force Survey
SABPP	South African Boards of Personnel Practice
SARB	South African Reserve Bank
SETA	Sector Education and Training Authority
StatsSA	Statistics South Africa
UK	United Kingdom
UNDP	United Nations Development Programme

UNHCR United Nations High Commissioner for Refugees

WB World Bank

WEF World Economic Forum

## CHAPTER 1: INTRODUCTION AND BACKGROUND OF THE STUDY



**Figure 1-1: Framework chapter one**

Source: Compilation by author

### 1.1 INTRODUCTION

In today's knowledge-based and highly competitive economy, graduate labour immobility represents a valuable human resource pool, armed with education, skills as well as the potential to contribute to the growth and development of certain industries and countries. But the problem is that graduate labour immobility has also impacted the economic growth of various countries such as Spain (Garcia-Espejo & Ibanez, 2006), Canada (Abas & Imam, 2016), England (Moreau & Leathwood, 2006) and South Africa, highlighting the large number of the unemployed, standing at 32.6 percent in the second quarter of 2023 (Statistics South Africa, 2023). Despite the rising prominence of further education and skills acquisition, graduates frequently still experience difficulties in obtaining suitable employment opportunities that match their skills and future aspirations (Pham, 2022). A study conducted by Ng *et al.* (2021) found that workers with skills specific to manufacturing may experience structural unemployment if they cannot easily move to areas with tech job opportunities or acquire the necessary tech skills in the event that a region experiences a decline in conventional manufacturing jobs as a result of automation and the development of the information technology sector. In addition, a study on the analysis of the impact of digitalisation on labour market development in the Russian Federation by Kudryavtseva (2019) indicated that the sectors most likely to see employment losses by 2027 are the

manufacturing, transportation and agriculture industries, with a percentage estimate of 23.9, 14.8 and 9.3, respectively. Therefore, labour immobility can worsen structural unemployment by hindering workers' ability to relocate or transition into industries with higher demands, which may result in a persistent skill and geographic imbalance (Alam *et al.*, 2022).

According to Ariga and Okazawa (2010), labour immobility refers to the difficulty that skilled workers face when trying to find employment opportunities in their chosen occupational fields in different geographical locations. This phenomenon can occur globally on international and national scales, and is often linked to economic, political and social factors. Firstly, at a global level, graduate labour immobility is affected by globalisation and the increasing interdependence of countries (Dayaratna-Banda & Dharmadasa, 2022). The movement of capital and goods across borders has been facilitated by advances in transportation and communication technology. Still, the movement of skilled workers has been slow due to restrictions on visas and work permits, language barriers, and cultural differences (Tu, 2022). Secondly, international graduate labour immobility is influenced by differences in labour markets, education systems and professional qualifications (Mærsk *et al.*, 2021). Skilled workers often face barriers to entry into foreign labour markets, as their qualifications may not be recognised or valued in the same way as in their home countries. Lastly, at a national level, graduate labour immobility can be affected by factors such as regional economic disparities, demographic shifts and government policies (Ortiga & Macabasag, 2021). In some cases, as emphasised by a current study by Di Paolo and Matano (2022), skilled workers may be reluctant to move to other regions within their own countries due to the high cost of living or a lack of job opportunities. According to Ernst *et al.* (2022), governments within the Organisation for Economic Cooperation and Development (OECD) countries such as Germany, Spain and the United Kingdom have implemented policies to protect their domestic labour markets, which has further restricted the movement of skilled workers, possibly leading to labour immobility. In addition, the COVID-19 pandemic has had a significant impact on graduate labour immobility, as travel restrictions and economic uncertainty have made it even more difficult for skilled workers to find employment opportunities in new locations (Di Paolo & Matano, 2022).

Various employment indicators (OECD Employment and Labour Market Statistics, 2014) indicate a downward shift in job security and availability, while theorists have linked long-term labour market adjustments to residential mobility, arguing that these changes necessitate increased flexibility and mobility (Preece, 2018). In the field of graduate labour immobility, authors such as Tu (2022) and Maersk *et al.* (2021), explained that there are both challenges and opportunities for addressing graduate labour immobility. On the one hand, globalisation and advances in technology are likely to continue to increase the demand for skilled workers in a range of

industries, creating new opportunities for mobility. On the other hand, governments and organisations will need to work together to address the barriers to entry that those skilled workers face, including the recognition of qualifications, language barriers and cultural differences (Tu, 2022). According to Hanson (2005: 15301), immobility has more often been seen "as the absence of an event (mobility) rather than as an occurrence worthy of analysis." The need for immobility to be "taken seriously" in mobility research, as well as for a greater emphasis on stillness (Hirose & Creswell, 2023; Coulter *et al.*, 2016), is addressed in this research paper.

In order to understand the antecedents of graduate labour immobility, the study firstly has to determine, clarify and what labour immobility is. Labour immobility, as defined by Ukpere and Slabbert (2009), is the inability or unwillingness of workers to move geographically or occupationally in search of employment opportunities, which is viewed as a complex issue with significant global and national impacts. However, Campbell (1994) defines labour immobility as an economic transformation that is changing over time. Labour is a factor of production and when factors of production cannot be transferred easily from one use to another they are categorised as immobile. In today's globalised economy, the movement of labour is a critical driver of economic growth and development, making labour immobility an issue of great concern for policymakers and economists around the world. At a global level, labour immobility can lead to a mismatch between the skills and qualifications of workers and the demands of employers, resulting in labour shortages in certain regions and industries (World Bank, 2020). Therefore, understanding the antecedents (causes/factors) of graduate immobility within South Africa can help in addressing and preventing such immobility to preserve the human capital of graduates when necessary. That said, it can also highlight the conditions under which graduate immobility is not beneficial for the country and organisations. This can lead to increased competition for labour, higher wages and higher costs for goods and services, which can ultimately impact global economic growth (Sala, 2011). Regardless of the theoretical lens applied, the field of graduate immobility is still relatively new, and many research questions are yet to be answered. Additionally, there is growing recognition of the importance of investigating the drivers of immobility.

At the national level, labour immobility can exacerbate regional economic disparities and perpetuate inequality, as workers in less economically developed regions may be unable to access job opportunities in more urbanised areas (OECD, 2019). This can lead to a "brain drain", as highly skilled workers migrate to areas with better job prospects, leaving behind a workforce with lower levels of education and training. In South Africa, labour immobility is a particularly acute issue, with historical and social factors contributing to significant regional disparities in employment and economic development (ILO, 2015). The legacy of apartheid has created a

situation in which the majority of the population lacks the education and training necessary to access high-skilled jobs, while a small minority holds a disproportionate share of the country's wealth and economic power. As a result, many workers are unable to move to areas with better job prospects, perpetuating economic inequality and hindering social mobility (Kearney & Levine, 2014). Therefore, labour immobility is a critical issue that has significant global, national, and regional effects. Challenges such as low income, language barriers and lack of skills are some of the areas which governments should be focussing on (Dayaratna-Banda & Dharmadasa, 2022) in order to create policies and incentives that promote the movement of labour, improving access to education and training opportunities, and reducing social and economic barriers that prevent workers from accessing job opportunities in different regions and industries (Gokulsing & Tandrayen-Ragoobur, 2014).

According to de Haas (2021:16), immobility contributes to labour market failure and can lead to long-term structural unemployment. The phenomena which labour markets were faced with amidst the COVID-19 pandemic were high levels of youth unemployment and financial instability caused by low wages and high interest rates. In addition, labour market mismatches (also known as skill-mismatches), low job opportunities and difficulty in school-to-work transitions are all challenges in the labour market which threaten to exacerbate pre-existing issues both nationally and internationally (Rahim *et al.*, 2021). In accordance with the views of de Lange *et al.* (2014) more focus should be placed on labour market integration through the process of transitioning from higher education to work. This should be socially regulated, which might lead to labour mobility and less strain on the present existence of labour immobility. Studies have since indicated that labour immobility occurs when labour does not “move” to where it is most needed. The assumption that factors are immobile across borders is commonly found in models of global trade. While immigration limitations have historically kept workers in their place of origin, various factors such as economic opportunities, political stability, and personal circumstances have also played a significant role in influencing individuals to stay in their home countries (Abramitzky *et al.*, 2023)

Although extensive academic research aimed at exploring the mobility of labour and the impact it has on immigration has been carried out, many studies have failed to investigate graduate labour immobility and to focus on a specific country like South Africa. One such study conducted by Cai *et al.* (2002) analysed the relationship between labour immobility and economic growth, focussing on the impact labour immobility has on economic growth. This study indicated that high levels of youth unemployment and inequality, and the lack of quality education had short-and-long term impacts on a country's well-being in some areas. A recent report by Statistics South Africa (2023) indicated the alarming reality that in the first quarter of 2022, unemployment among young graduates aged 15-24 declined from 40,3% to 32,6%, while it increased by 6,9 % to 22,4% for

those aged 25-34. The shift in unemployment rates among different age groups suggests a complex set of challenges in the labour market. It raises concerns about the overall growth and inclusivity of the job market, potential skills gaps, and the need for targeted policies and interventions to address these issues.

However, despite two quarters of employment growth, the number of employed persons declined by approximately 1.5 million by the end of 2020, and earnings for workers who still had jobs had fallen between 10% - 15% (Stats SA, 2022). At the time of publication, just 40% of job losses had been regained. The study found that job losses during COVID-19 were disproportionately distributed among low-income earners, exacerbating already severe disparities, despite the government's decisive and pro-poor reaction with transfer programmes that mitigated the pandemic's harmful effects. Low-wage workers lost nearly four times as many jobs as high-wage earners.

There is a growing realisation that a university degree might not necessarily be the key to employment once students have completed their degrees and that cost-constrained employers are increasingly focussing on what return on investment the employee can offer them. Not all learners will have the opportunity to study further/ to tertiary level, and therefore, provision has to be made for them as well. Immobility is a cause of labour market failure and can cause persistent long-term structural unemployment (Hollywood, 2002). However, there are two types of labour immobility; the first being geographical immobility, which refers to the barriers of people moving from one place to another in order to find work, and which is caused (antecedent) by socio-economic factors like housing, cultural barriers, and education (Fletcher, 2009); and secondly, occupational immobility affecting those labourers who do not have the skills and training to shift occupations easily. The government tries to correct this market failure by means of investing in education and higher education, but it still has not entirely succeeded (Mulder, 2018). In addition, Topalova (2010) argues that a crucial component of this transition is the need to redeploy output factors over time, from sectors that manufacture goods or services that are no longer in high demand to certain sectors in the economy that are growing in the face of continuous increase in demand. A significant part of this is labour mobility since, if jobs do not shift from decreasing to expanding markets, structural unemployment can be a consequence (Meardi, 2008). Besides, already in the early 2000s, Khoudour-Casteras identified several other factors such as income, education, culture, health and lifestyle that make it impossible for labourers to move between industries and sectors. This is also known as frictional unemployment; when people are searching unsuccessfully for new work opportunities (Khoudour-Castéras, 2009).

More than 15 years ago researchers and academics had established that occupational immobility exists because different occupations require different skills and experiences, whether these be soft skills, technical skills or even analytical skills. Before workers enter a new market, they will need to re-train, re-educate and develop new skills (Reicher *et al.*, 2006). With geographic immobility, the problem could be worse if the expanding industries are situated in an area other than the deteriorating ones. Relocation is expensive, and if they have to move house, employees are hesitant to look for jobs. Variations in house prices between regions aggravate the problem. Furthermore, the government might be able to avoid labour immobility by setting up retraining programmes so that staff can develop the expertise required to be redeployed (Zimmermann, 2005). Companies would be hesitant to offer their workers training themselves, since a 'free-rider' concern could be present: once they attain the skills required workers might leave the company for other opportunities that may arise. Regarding geographical mobility, in order to enable employees to travel to where they are required, the government would need to provide migration subsidies (Schivardi, 2000), thus minimising the requirement to pay unemployment insurance to persons who are unable to find work close to their homes. When workers stay in one industry rather than shifting to another, such as from the auto sector to the insurance business, this is referred to as industrial immobility. The United Kingdom (UK) and many other industrialised nations have been impacted by industrial immobility as a result of the expansion of the service sector and the loss of the manufacturing sector.

Closer to home, according to Savage *et al.* (2015), customer service has been adversely affected by the geographical proximity between Namibia's and South Africa's skills needs and shortages. Another study conducted by Allias (2022) emphasised that there tends to be a deficit between the skills required in South Africa and those which the education system supplies and this has a negative impact on the economy. Similarly, a study conducted by Asmal *et al.* (2022), also found that there are significant discrepancies between workers' educational levels and the educational requirements of their current occupations. According to Teal (2011), this specific dysfunction operated at all levels, both schools and higher education institutions (HEIs) (write out fully first). Since there is a great need to deliver the skills required over the next decade, change has to be implemented radically. Good quality education is essential for skills development since a skilled workforce is critical for economic growth and development (Berar, 2022). This may lead to better skilled workers, lower rates of unemployment and an improved economic outlook in the future. In some cases, South Africans are faced with a tertiary education system that has historically concentrated on education for public sector employment, with little to no in-depth regard for the private sector needs at most higher education institutions. Countries in Europe as well as India and the United Kingdom have altered education curricula in order to narrow the skills gap and

thereby change the availability of higher education from the existing demands of the labour market. Therefore, South Africa should revise its approach in transforming the education system and addressing the skills gap that exists with the aim of narrowing it and meeting the existing labour market demand (Quarterly Labour Force Survey, Quarter 2: 2023). Primary and tertiary institutions need to keep an eye on South African markets, develop technical and agricultural education, and improve the quality of existing systems. This approach would also provide students with more and better instruction to direct them into private sector jobs, away from participation in conventional public sector admission subjects in the arts, humanities and social sciences. Whether universities supply that which is demanded from the labour force, considering the skills required in the modern world, is a question that needs to be addressed.

According to Lee (2020) and Salas-Velasco (2021), matching skills and jobs has become a high-priority policy concern. Skills gaps occur when workers have either fewer or more skills than jobs require. Some skills gaps are inevitable, as the labour market involves complex decisions by employers and workers, and this depends on many external factors (Department of Labour, 2018) However, high and persistent skills gaps are costly for employers, workers and society at large (Brunello & Wruuck, 2021).

From the above, it is clear that research examining the impact of graduate immobility is lacking at international and national levels. Considering these limitations, the goals of the current review are to organise the literature on antecedents of graduates' immobility by providing a synthesis of the literature (Chapter 2); propose some missing antecedents regarding graduates' immobility that could serve as the basis for future investigation; and to consider the impact of graduate immobility on economic growth in South Africa. This study defines graduate immobility in Chapter 2, Section 2.2, while in Chapters 2 and 3 the concept and meaning of labour immobility are defined and a brief discussion is provided on a comparative analysis of labour mobility and labour immobility, highlighting existing gaps in the economic field. Some directions for future research are identified/suggested in Chapters 3 and 4. In conclusion, the aim of this research is to analyse the antecedents of labour immobility and their impact on economic growth in South Africa. This should help to reach an understanding of whether South Africans are unemployed because they lack the relevant skill sets or simply that South Africa lacks the correct employability structure for the coming generations.

## **1.2 PROBLEM STATEMENT**

The World Economic Forum (2023) reports that employers foresee a structural labour market shock affecting approximately 23% of jobs in the next five years. This can be understood as an aggregate measure of disruption, consisting of both new employment created and jobs lost. It,

furthermore, alluded to the prospect that no less than 54% of all employees will have to upgrade or replace their skills by 2022, a view supported by the South African Boards of Personnel Practice (SABPP, 2021). SABPP emphasises that in order for labour markets and businesses to grow their human capital, organisations should optimise their workforce and improve employees' work quality by adhering to the SABPP's HRM System Model and Standard, which outlines what must be in place for them to grow and expand and be aligned with future jobs. This is the product of rapid advances in technology and rising digitalisation that influence both our professional and personal livelihood (International Labour Organisation, 2021). According to research by Brunello and Wruuck (2021), and supported by Sutherland (2020), the scarcity of expertise in South Africa is caused by growing demand, leading to a rapid increase in growth, which correlates with ongoing supply constraints. These antecedents are driven by the pull factors of the global skills marketplace, and the failure of the country to adequately develop, utilise and maintain human capital from its own reserves. In addition, as stated by the Services Sector Education and Training Authority (SETA), Service Sector Skills Plan 2022/2023 (2023), there is a strong existing correlation between occupation and income, and between occupation and qualification. Skilled individuals are more likely to find employment in higher levels of occupation, which in turn pay better than others. Another significant finding is that skilled people do not easily lose their jobs, compared to less skilled ones.

While extensive literature exists, much research pertaining to labour immobility has focussed on skills as a broad subject, and most of the studies conducted were industry specific, where participants were graduates or permanently employed. Therefore, despite growing evidence that educational mismatches tend to be weakly linked to skills gaps, a number of papers deal with skills and educational job-worker gap as ideal equivalents (Allen & van der Velden, 2001; Di Pietro & Urwin, 2006; Green & McIntosh, 2007; SAGEA, 2019). In South Africa there seems to be a gap between education systems and skills required for employment (Moore & Morton, 2017:593). Furthermore, there is a widening gap between existing worker capabilities and the skills companies require to meet their development goals (PwC Report, 2020). Labour immobility is a significant problem because it causes structural unemployment and economic vulnerability through occupational immobility which is a barrier to people trying to find work, and those towns with low mobility are more exposed to external shocks. Another cause is the persistent relative poverty which exists due to long term unemployment damage to lifetime earnings. Areas with high poverty levels are more likely to experience economic deprivation leading to a fall in incomes and higher debt levels. Lastly, the loss of economic efficiency and social welfare through immobility stops scarce resources from optimal usage. Therefore, social costs from increased unemployment and the rising level of relative poverty worsens the situation.

The research problem is that there is insufficient information and data available on the extent of labour immobility in South Africa and the impact it has on economic growth. Therefore, the research aims to analyse the antecedents of the labour immobility (travel, relocation, geographical and family). In view of how vulnerable many graduates and workers are in their workplace, it is hoped that by narrowing the information gap and gaining knowledge and understanding of the quality education systems required, we could introduce a readiness tool for workers to improve their livelihood which may consist of increased employability, better employment opportunities as well as higher remunerations packages in the workplace which may ultimately increase South Africa's economic growth.

### **1.3 THEORETICAL PERSPECTIVE AND FRAMEWORK**

Several theories can be identified to explain labour immobility and economic growth. In the context of this research study, two major concepts need to be reviewed jointly: firstly, labour immobility; followed by economic growth. Economic growth includes a number of factors that may lead to economic development (Mellet, 2012). It is for this reason that both economic growth and skills development are considered in order to enhance the research focus and to provide a clear understanding as to which factors are associated with both of these fundamental concepts, as well as how these antecedents would lead to employment and an increase in economic growth.

The most significant factors affecting economic growth are high levels of unemployment, inequality, labour productivity, taxes and technological advancements. In addition, a decline in economic trends limits/constrains an economy's capacity to produce new job opportunities and provide workers with the skills required to fill the occupations that already exist. Therefore, it is also essential to consider the economic growth patterns for South Africa in general, and the Sector Education and Training Authority (SETA) services sector in particular.

#### **1.3.1 Socio-economic growth theoretical perspectives**

Economic growth is defined as an increase in the consumer value of the products and services produced by the economy over a given period, usually annually. Gross domestic product (GDP) is calculated for the price of goods and services generated in the economy by inflation (Mehrra & Ghamati, 2014; Munyemana, 2013). Multiple growth models are primarily controlled by both classical and neoclassical theories or models. Some of the principal theories of economic growth include the following, presented in the table below.

**Table 1-1: Principal theories of economic growth framework**

<b>Theory</b>	<b>Description</b>
<b>1. Classical theory</b>	The productivity of labour. Smith (1983) argued that per capita income was measured by "the state of their skills, abilities, and judgment in which work is carried out in any country".
<b>2. Neo-classical theory/ Solow-growth model</b>	The neoclassical theory of economic growth implies that the decline in returns stems from growing capital or labour.
<b>3. Mercantilism</b>	This theory argues that the income of a country is determined by gold accumulation and trade surplus in service.
<b>4. Endogenous growth theories</b>	The rate of economic development and growth is significantly impacted by human resources and the rate of their technical innovation.
<b>5. Keynesian demand side theory</b>	Keynes held that, in the short and medium-term, aggregate demand might play a role in affecting economic growth. Although most growth models overlook the position of aggregate demand, some economists argue that recessions can induce hysteresis and decrease long-term economic growth.
<b>6. Limits to growth</b>	From an environmental point of view, others argue that resource depletion and global warming would constrain economic development/ growth in the long run. This suggests that, reminiscent of Malthus theories, economic development may come to an end.

Source: Adapted from Pettinger, 2019.

### **1.3.2 Labour immobility theoretical perspectives**

#### **1.3.2.1 Neo-classical location theory**

Location theory thrived during the 1950s and the 1960s. It was mainly about establishing and explaining the patterns involved in the distribution of economic activities across space. This is the kind of economic geography associated with neo-classical economic theory, and it utilised a model-based method to study the location where economic activities took place. The quantitative revolution provided foundations for geographical economics, spatial economics, and regional science. Over time economic geographers explored alternatives as a result of not being satisfied with this approach (Sokol, 2011). Neo-classical economists believe that when it comes to resource allocation, the market is the most efficient and effective mechanism. This is built on the foundations of Adam Smith's theory, whose concepts – including the invisible hand and rational self-interest of the market – remain influential today.

### **1.3.2.2 Behavioural approach**

The behavioural approach has become an integral part of economic geography because of its ability to study the process of economic decision-making. This plays a pivotal role in the modern economy as it helps investors and their stakeholders to decide on new locations for shops, farms or factories (Chand, 2020). With the incorporation of more realistic assumptions, the behavioural approach to economic geography has helped by unpacking the concept of distance as it relates to factors like travel time or effort needed, because all these factors are pivotal determinants of human activity (Montello, 2016).

### **1.3.2.3 New Economic Geography (NEG)**

The role of the New Economic Geography (NEG) in the modern economy is that this theoretical perspective is mostly concerned with production in the economy. The role of clustering forces in generating an uneven distribution of income across space and economic activities are emphasised through NEG (Venables, 2008). The NEG illustrates how an outcome is dependent on the degree to which different activities and goods are mobile between locations. The NEG offers explanations of the presence of international and regional inequalities, and the existence of cities. The perspective of the NEG ranges across spatial scales that differ, from the urban to the international scale.

### **1.3.2.4 Structural approach/Marxist political economy**

The Marxist political economy approach differs significantly from the approaches mentioned above in that the core of the analysis is made up of social relations that take class into account (Proctor, 2018). This approach, adapted from the works of Karl Marx and Friedrich Engels in the 1970s, has impacted the thinking patterns and understanding in economic geography and retained its foothold in modern economic theory to the present date. The introduction of social relations in economic geography effectively leads to an understanding that has progressed away from locational concerns and spatial patterns and has advanced to include social relations, as well as provide clarification on how capitalist economics are structured (Sokol, 2011).

Various other theories can be included in the discussion of the research study. These include:

- Occupational immobility
- Geographical immobility
- Types of unemployment
- Socio-economic factors

- Government intervention/ policy

The analysis examines influential schools of thought, including neoclassical theory focussed on the assumption that the effective allocation of market processes will achieve the distribution of resources for Pareto principle, which indicates that for many outcomes, around 80% of the consequences result from 20% of the causes. Thereby suggesting that government intervention distorts the allocation of resources away from the market (Nkunzi, 2014). According to Amsden (2001), structuralist theorists question the principle of neoclassical theory and claim that the government may use instruments such as taxation, subsidies and tariff exchange rates in a discretionary manner to lead to significant market distortions. The structuralist theories of industrial progress are supported by empirical studies indicating that output, along with state-led industrial policies, brought in cycles of strong, sustained economic growth.

## **1.4 RESEARCH OBJECTIVES**

### **1.4.1 Primary objective**

The primary objective of the study is to analyse the antecedents of graduate labour immobility in South Africa and to provide the government with a policy development strategy that will improve the current state of the economy and ensure that those employed can remain in the labour force sector by providing skills development projects, assist in the development of both the local and private sector and suppress high rates of unemployment in the long term.

### **1.4.2 Theoretical objectives**

In order to achieve the primary objective, the following theoretical objectives were formulated for the study:

- To define and conceptualise labour immobility from a theoretical perspective approach through an in-depth concept analysis (Chapter 2).
- To review, define and conceptualise theoretical frameworks on labour market integration and socio-economic theoretical perspectives (Chapter 3).
- To determine the antecedents (causes/factors) that lead to labour immobility (Chapter 2 and 5).
- To develop a national questionnaire on labour immobility of graduates (Chapter 2, 3 and 4).

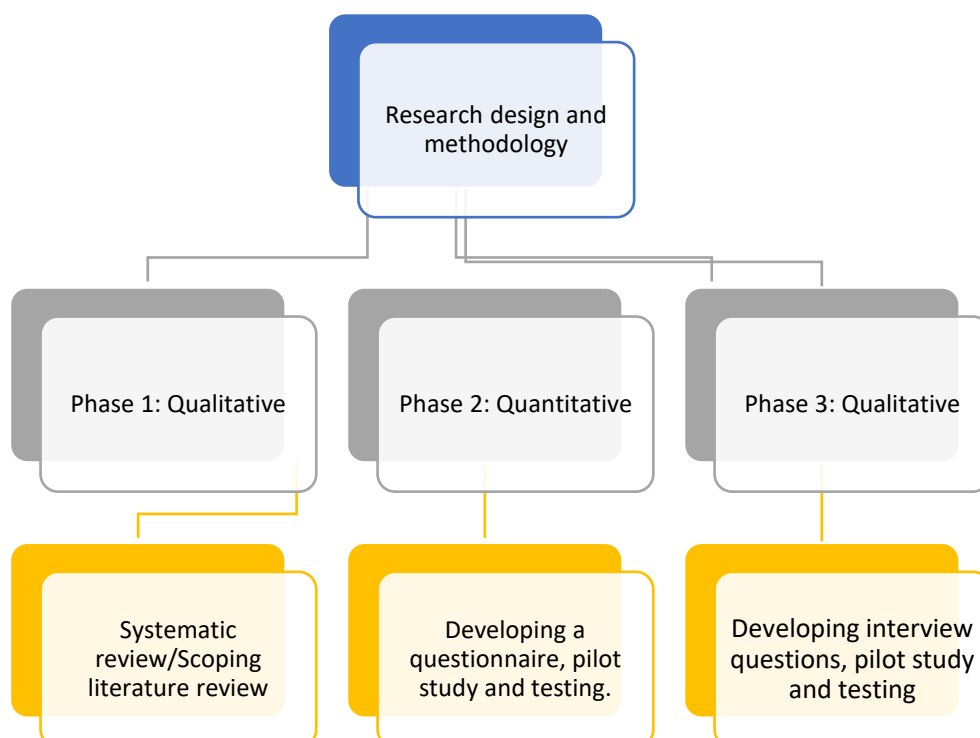
### **1.4.3 Empirical objectives**

In accordance with the primary objective, the study also aims to achieve the following empirical objectives:

- To determine (Chapter 5) and identify (Chapter 6) which antecedents (causes/factors), influence labour immobility of South African graduates.
- Based on previous findings, to provide insight into theories and models used to determine and identify labour immobility in South Africa (Chapters 2, 3, 5 and 6)
- To predict if antecedent (causes/factors) predict immobility (Chapters 5 and 6); and
- To construct a detailed guideline for new strategic policy development recommendations, which will be sustainable in the short and long term (Chapter 7).

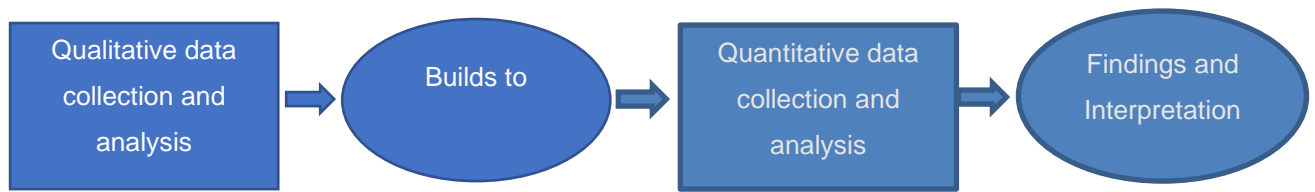
## 1.5 RESEARCH DESIGN AND METHODOLOGY

In this section the study provided more insight on how the research design and methodology was conducted. The study research design firstly focusses on a systemic evidence qualitative review, with the purpose of identifying the antecedents of labour immobility, the role of research in occupational, geographical and factor immobility planning dynamics, and make recommendations for mechanisms which would enhance economic growth. The objective of the systemic literature review which broadly forms part of the focal literature review is to identify the antecedents of labour immobility.



**Figure 1-2: Research design and methodology**

Source: Compilation by author (2023).



**Figure 1-3: Exploratory Sequential Design**

Source: Compilation by author (2023).

The purpose of this exploratory sequential design is to first explore with a small sample qualitatively and then determine if the qualitative findings generalise to a large sample. The exploratory design begins with and prioritises the collection and analysis of qualitative data in the first phase. Building from the exploratory results, the researcher conducts a second, quantitative phase to test or generalise the initial findings. The researcher then interprets how the quantitative results build on the initial qualitative results (Hirose & Creswell, 2023).

The combination of quantitative and qualitative methods in an explanatory sequential design allows for a comprehensive exploration of the research question. The quantitative phase provides initial insights into relationships or associations which can be further illuminated, contextualised, or enriched by the qualitative phase (Creswell & Clark, 2018). The qualitative phase helps generate hypotheses, theories, or models that are grounded in participants' perspectives and experiences, providing a more nuanced understanding of the research topic (Parahoo, 2006). Therefore, the author made use of a mixed method process which was conducted first by means of data collection through a self-administered questionnaire, after which the study also collected qualitative data by means of face-to-face interviews to gather the most relevant information.

### **1.5.1 Study design and context: mixed method design**

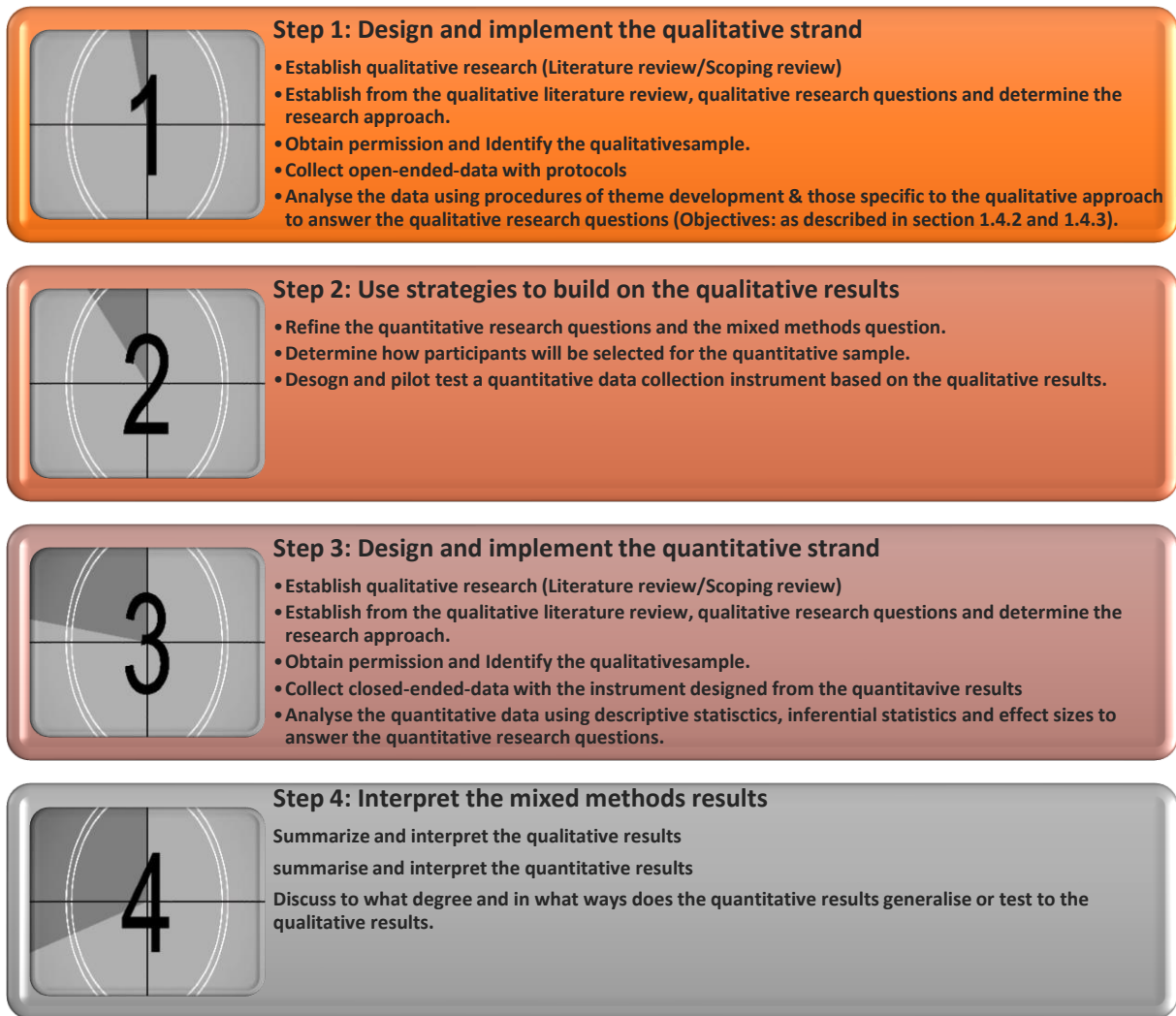
A mixed method approach was used in order to effectively achieve the theoretical and empirical objectives. The study research design focussed first on a systemic literature review with the purpose of identifying the antecedents of labour immobility, the role of research in occupational and geographical planning dynamics and making recommendations on mechanisms which would enhance the economy. The objective of the systemic literature review is to identify the antecedents of labour immobility which broadly forms part of the focal literature review.

For the Systemic Evidence Qualitative Review, the study uses secondary data. For the systematic review, the researcher uses the web programme Rayyan. Rayyan is a free web and mobile app

that helps expedite the initial screening of abstracts and titles utilising a process of semi-automation while incorporating a high level of usability (Dos Reis *et al.*, 2021). This systematic review process consists of policy documents and reports from various spheres of the local and private sector institutions, and academic literature which are used to populate the review (Foo *et al.*, 2023). The study integrates both quantitative and qualitative method analyses comprising the methodological section of the thesis. This includes a primary data analysis by means of a questionnaire-based survey, followed by a secondary data analysis which measures the impact of the antecedents of labour immobility on economic growth in South Africa. The author developed a questionnaire designed on the premises of analysing graduate labour immobility with various sections focussing on the factors of demographics, geography, occupation and lastly skills of the participants.

Methods of qualitative analysis include ways to investigate verbal or written evidence through interviews. These approaches are concerned with discovering a given topic and interpretations thereof. Quantitative methods of study, on the other hand, are means of analysing phenomena by statistics. Research using hybrid approaches incorporates qualitative and quantitative methods of research to produce a wider view of a given sector as illustrated in Figure 1-3 below. Where the use of one method is not adequate to adequately describe or explain a certain phenomenon, this hybrid approach may be especially beneficial (Guetterman *et al.*, 2017).

The use of both quantitative and qualitative data, therefore, creates confidence in the quality of data gathered, analysed and interpreted. These methods complement each other and provide information that could be unavailable when using only one method (Creswell & Sinley, 2017). Furthermore, it drives the need for a better understanding and knowledge as to how and why certain strategies were selected throughout the study. Lastly, the use of both methods and data gathering improves the ability of the researchers to draw conclusions from their research which may result in more robust and exploratory findings.



**Figure 1-4: Implementation flowchart of an exploratory sequential design**

Source: Adapted from Creswell & Clark (2018)

### 1.5.2 Literature review

The research design of the study outlines the importance of the study and the approach that researchers use to answer their research question (Polit & Beck, 2010). It is of importance that the researcher meets the objectives of the study and, therefore, they need to select the most appropriate design to achieve the aims of the study objectives (Parahoo, 2006). The literature review is conducted by reviewing the study's theoretical background and using secondary data and sources, including government policy documents, textbooks, academic journal articles and other relevant sources.

### **1.5.3 Empirical study**

The study integrates both quantitative and qualitative methods of analysis. The methodological section of the thesis includes a primary data analysis by means of a questionnaire-based survey followed by a secondary data analysis which measures the impact of the antecedents of labour immobility on South African graduates. The integration of both qualitative and quantitative research methods, known as mixed method approach, is an appropriate method to gain quality data that upholds the standard of the research design and ensures valuable/important information which would be difficult to capture by means of a single research method alone (Almalki, 2016:288).

### **1.5.4 Quantitative method**

This section provides a detailed view on information about the way data are gathered and analysed.

#### **1.5.4.1 Data sources (framework, sample size, questionnaire)**

Therefor as indicated in Section 1.5.2< the systemic literature review the of study used secondary data from accredited sources to substantiate the body of existing literature and in order to develop and build on those. Additionally, the study conducted a multifaced scoping review which consists of policy documents and reports from various spheres of the local and private sector and institutions, as well as academic literature which is used to populate the review.

### **1.5.5 Qualitative method**

This section provides a more detailed view on the information gathered and analysed.

#### **1.5.5.1 Sample frame and size**

The participants were recruited on a voluntary basis. The empirical data were primarily collected through a survey-based research design to elicit information from a broad number of individuals who were willing and able to communicate by means of a questionnaire and interview focus groups. The sampling frame for this study refers to graduates from any Higher Education Institution (HEI), further studies and training. The target population were all graduates that currently employed in permanent positions or unemployed in both the public and private sectors, as well as unemployed graduates. As the alumni databases of universities are not always up to date, it is imperative to identify potential participants from both past and recent graduates. For the qualitative data (Chapter 6), participants were interviewed until data saturation was reached.

### 1.5.5.2 Data sources

Participants' data were collected by means of a questionnaire and interviews and were held with participants either electronically or face-to-face in focus groups. The content of the interviews was transcribed by a professional transcriber for further analysis. Qualitative data were coded and analysed using Atlas.ti Version 9 for Windows. Attention was paid to the mention of a code by each individual, as well as each group discussion contained within a given code. Additional focus groups were conducted until data saturation was reached. To ensure the validity and reliability of the data and the collection process, before the questionnaire was circulated for the final test, a pilot analysis was conducted.

The survey with a questionnaire was carried out in order to gather the data required. Given that previous labour immobility metrics have been weak, reducing uncertainty and reliability (Allan *et al.*, 2017), a recently validated Occupational Composition Scale (OCS) was used in the analysis to assess the current standings of labour immobility and its prospects in meeting the future skills and knowledge needs of the South African economy (Brown *et al.*, 1997). The OCS sets out/ measures/ stipulates:

1. The anticipated educational achievement of people in professional careers

2. Important ratings for three categories of higher-level skills:

- Critical skills
- Problem-solving ability and skills.
- High-level analytical skills

3. The standards for work readiness, which consider training and experience as well as qualifications, vary from a low level of little or no preparation to a high level of significant to substantial preparation. There was no record of research in South Africa that used this scale to calculate labour immobility at the time of this proposal (Clark, 2013).

## 1.6 ETHICAL CONSIDERATIONS

The research study adhered to protecting the identities and interests of all participants while conforming to the ethical writing standards of academic research. All information provided by each participant was treated with the utmost respect and confidentiality. Participation in this study was voluntary and informed consent for all stages of the study was sought. Participants were free to withdraw from the study at any time without fear or penalty. The questionnaire and interview questions used for data collected were presented to the North-West University's Scientific Committee and Research Ethics Committee and were approved with the ethical clearance

number (NWU-01841-22-A4). For ethical reasons, the study does not disclose the name of the university from which graduates were sourced.

## **1.7 CONTRIBUTION OF THE STUDY**

This researcher hopes to inform both the local and private sectors on strategies to improve their daily business and existing policies, and to ensure all individuals/participants are better prepared and equipped for the labour market even when facing both occupational and geographical immobility for a certain period. The study aims to provide clear policy recommendations that will assist in compiling policies relevant to the current state of the nation and adaptable when shocks occur. Furthermore, it seeks to suppress the high levels of unemployment, by supplying the labour market with the demand and skills-sets required to effectively complete tasks. The study hopes to make a significant contribution to the existing development strategies and projects by identifying the lack or gaps in the system that need to be addressed and transformed for more favourable results. Focus can be shifted to the implementation of the most relevant and appropriate tasks; it is envisaged that the change will be followed by an increase in economic growth patterns.

## **1.8 CHAPTER CLASSIFICATION**

### **Chapter 1: Introduction and background to the study**

This chapter introduces the research of the study. It outlines the introduction, background and research problem. It further introduces the objectives of the study and the research methodology. It highlights the motivation for undertaking such research and provides an overview of the remainder of the study. Lastly, it provides a clear conceptual overview of the research and topics to be discussed in depth.

### **Chapter 2: Concept analysis: labour immobility**

This chapter provides a conceptual analysis of labour immobility with a specific focus on the factors and antecedents of labour immobility among graduates. The chapter comprehensively discusses labour immobility as guided by the labour immobility framework. The purpose of this chapter is to make use of a concept analysis of labour immobility to analyse, define, develop and evaluate (Delves-Yates *et al.*, 2018) and is undertaken to achieve a better understanding of labour immobility (Foley & Davis, 2017).

### **Chapter 3: A theoretical overview on labour market integration and socio-economic theoretical perspectives**

This chapter focusses primarily on the theoretical overview on the conceptualisation of labour market integration and socio-economic theoretical perspectives, in which the various principal theories and existing frameworks are reviewed and their impact on labour immobility discussed. The role and importance of labour market integration and its relation to labour immobility and socio-economic factors in the modern economy are considered/ explored/ assessed.

### **Chapter 4: Research methodology and design**

This chapter describes the nature and the scope of the methodology applied in the study. It also presents a description of the data. The planned research design, methods and sample selection, data collection and analysis of results are explained. The ethical considerations for this particular research study are also detailed. The chosen methodology aims to generate useful information through the collection and analysis of the data received from all participants.

### **Chapter 5: Empirical analysis of labour immobility**

This chapter focusses on the various models used in the study to measure labour immobility and sets out/presents the empirical results of those findings.

### **Chapter 6: Results and findings**

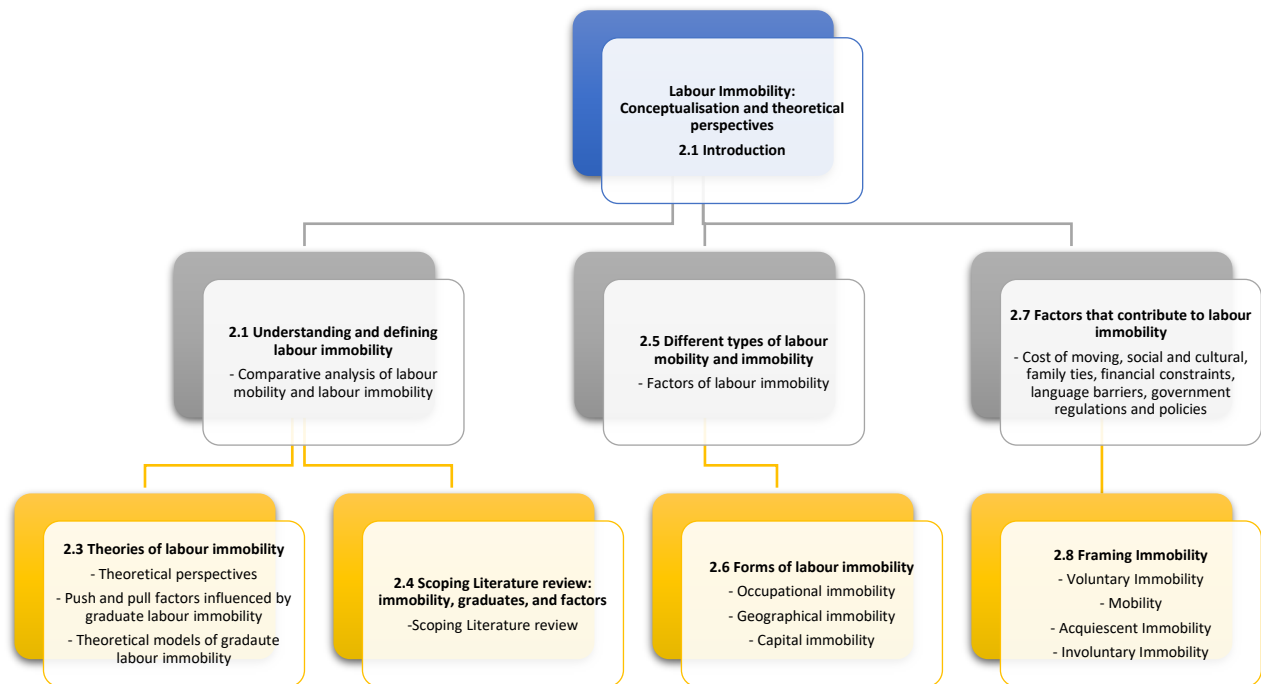
This chapter analyses and discusses the findings of the empirical research undertaken.

### **Chapter 7: Summary, conclusion, and policy recommendations**

This chapter presents the summary of the major findings of the study, discusses the presented results, and provides concluding remarks to highlight a certain area of improvement within the findings. Finally, recommendations for future policy-making decisions for both local and national government are made.

## CHAPTER 2: LABOUR IMMOBILITY CONCEPTUALISATION AND THEORETICAL PERSPECTIVES

*“Theoretical frameworks provide a broad and general view of the research problem, rooted in established theories. They explain phenomena by applying a particular theoretical lens. Conceptual frameworks, on the other hand, offer a more focused view of the specific research problem.” – ATLAS ti*



**Figure 2-1: Framework chapter two**

Source: Compilation by the author

### 2.1 INTRODUCTION

This chapter includes a literature review which considers what has previously been published on labour immobility and, more specifically, the labour immobility of graduates.

Graduate unemployment is a growing concern globally, particularly in developing countries, as the number of university graduates continues to rise. The inability of graduates to secure employment in their fields of study has significant economic and social implications, including a loss of human capital, reduced productivity, and increased social inequality (Rogan & Reynolds, 2016). The global economy has undergone significant changes in recent decades, with a shift towards knowledge-based industries and services (Kefela, 2010). This shift has resulted in an

increased demand for skilled workers, particularly those with tertiary education qualifications. However, despite the increased demand, there has been a rise in graduate unemployment in many countries, particularly in developing economies (Oppong & Sachs, 2015).

According to the International Labour Organization (ILO, 2022), youth unemployment refers to the share of the labour force who are aged 15-24 without work but available for and seeking employment (Mncayi & Meyer, 2022). The global youth unemployment rate for 2021 was 17.93%, which indicates a 0.67% increase from (indicate percentage here) in 2020, with young people being three times more likely to be unemployed than adults. The ILO also reported that the global youth unemployment rate for those with tertiary education was 6.7%, compared to 5.9% for those without tertiary education. However, this statistic masks significant regional variations, with the youth unemployment rate in Sub-Saharan Africa estimated to be almost 30% in 2022. The issue of graduate unemployment has been a topic of discussion at the international level, with several organisations, including the World Bank and the Organisation for Economic Co-operation and Development (OECD), conducting pivotal research on the topic. The OECD (2020) found that graduates are forced to take up jobs with lower entry requirements than their qualifications, which is a significant challenge facing many countries. The World Bank (2022) has also emphasised the need for countries to address graduate unemployment, noting that it is a significant obstacle to economic growth and development. Therefore, the World Bank (2022) has called for policies that promote the creation of high-quality jobs, improve the quality of education, and enhance the employability of graduates.

At the national level, the issue of graduate unemployment has been a significant concern, particularly the high youth unemployment rates. In South Africa youth unemployment rates remain high relative to other countries' averages, and young people are still disadvantaged in the labour market. In the second quarter of 2023, South Africa's unemployment rate was 32.6%, which was marginally lower than both market predictions and the previous quarter's 32.9%. In the first quarter of 2023, 258 000 more individuals were employed than in the fourth quarter of 2022 according to the Quarterly Labour Force Survey (QLFS) Q1:2023 (Statistics South Africa, 2023). In the first quarter of 2023, on the other hand, there were 179 000 more unemployed persons than in the fourth quarter of 2022 (Statistics South Africa, 2023). So even though the employment and unemployment rates of South Africa are shifting, there are still economic challenges that the country faces and contributing factors have to be identified and addressed in order to improve and develop the economy.

According to researchers such as Oluwajodu *et al.* (2015), Pauw *et al.* (2008), Baldry (2013) and Graham *et al.* (2019), several factors have been pre-identified as contributors to graduate

unemployment in South Africa. These factors include slow economic growth; the inability of the education system to keep pace with the changing demands of the labour market; and the limited availability of high-quality jobs in the economy. Labour immobility is a complex issue with significant global and national impacts. The study therefore aims at analysing and conceptualising labour immobility, which can be defined as the inability or unwillingness of workers to move geographically in search of employment opportunities. In today's globalised economy, the movement of labour is a critical driver of economic growth and development, making labour immobility an issue of great concern for policymakers and economists worldwide (OECD, 2021). At the global level, labour immobility can lead to a mismatch between the skills and qualifications of workers and the demands of employers, resulting in labour shortages in certain regions and industries (World Bank, 2020). This can also lead to increased competition for labour, higher wages and higher costs for goods and services, ultimately impacting global economic growth (ILO, 2018).

At the national level, labour immobility can exacerbate regional economic disparities and perpetuate inequality, as workers in developing countries may be unable to access job opportunities in more prosperous areas (OECD, 2022). This can lead to a brain drain, as highly skilled workers migrate to areas with better job prospects, leaving behind a workforce with lower levels of education and training. In South Africa, labour immobility is a particularly acute issue, with historical and social factors contributing to significant regional disparities in employment and economic development (ILO, 2020). The legacy of apartheid has created a situation in which the majority of the population lacks the education and training necessary to access high-skilled jobs. At the same time, a small minority holds a disproportionate share of the country's wealth and economic power. As a result, many workers are unable to move to areas with better job prospects, perpetuating economic inequality and hindering social mobility (Habib, 2018). Efforts to address this challenge must focus on creating policies and incentives that promote labour movement, improving access to education and training opportunities, and reducing social and economic barriers that prevent workers from accessing job opportunities in different regions and industries (Leibbrandt *et al.*, 2010).

The literature focusses on immobility in relation to unskilled illegal immigrants, refugees and asylum-seekers, but also on the potential for mobility when highly skilled professionals and graduates enter the labour market. According to Khan (2016), a critical appraisal of immobility in relation to migration in general clearly shows that mobility and immobility represent a continuum from the state of motion to the state of rest. As a result, Khan's (2016) research focussed on explaining some of the many realities highly skilled professionals face. This study challenges some migration taxonomies that regard skill as a major determinant of immigration and alumni

immobility. Wolbers (2003) stated that labour immobility is a concept that has been of interest to policymakers, labour market analysts and academics to provide direction to those searching for employment opportunities. This issue has significant implications for both individuals and the broader economy, as it can result in a mismatch between available jobs and job seekers, leading to high levels of unemployment in certain areas and labour shortages in others (Wolbers, 2020). Moreover, labour immobility can lead to lower productivity, slower economic growth, and higher inequality (Desai, 2012).

A study by Bridgstock (2009) addresses these issues which required a comprehensive approach involving various policies and strategies, including education and skills development programmes, labour market integration policies, and social assistance programmes. Therefore, graduate labour immobility remains an important agenda for researchers. A limited number of studies exists regarding the immobility of labour that focusses on graduates, while many studies have been conducted on the topic of mobility and immobility related to the migration of workers to other countries (Carling, 2002). Therefore, this study aims to provide a theoretical and empirical overview regarding graduate perceptions on immobility utilising a scoping review from the available literature pertaining to the antecedents of graduate labour immobility.

In addition, this research aims to contribute to the literature on labour immobility by examining the factors, theories and perceptions pertaining to labour immobility, the antecedents of labour immobility for individuals and the economy, and the policies and strategies that can be used to address these issues. In addition, by shedding light on these issues, this research could help to inform the development of policies and strategies that could promote greater mobility and inclusivity in the labour market.

In Section 2.2 below, the concept and the understanding of labour immobility are defined, and a brief discussion is provided on a comparative analysis of labour mobility and labour immobility. Section 2.3.1 discusses theories of labour immobility while Section 2.3.2 deals with the push and pull factors that influence labour immobility. This is followed by a discussion on the theoretical perspectives on labour immobility in Section 2.3.3.

## **2.2 UNDERSTANDING AND DEFINING LABOUR IMMOBILITY**

In order to understand labour immobility properly, the clear distinction between labour mobility and labour immobility needs to be recognised. In accordance with Schewel (2019), Preece (2018) and Yang (2020), labour mobility comprises the ease with which workers can leave one job for another. For the purpose of this study the researcher defines labour immobility as the incapacity or difficulty for employees to migrate between various geographic locations or industries in search of employment. Workers may not be able to pursue new career opportunities in the event of

layoffs or termination if their occupational labour mobility is limited. This can be true for workers with few or specialised skills that are only useful under limited circumstances. For example, a worker trained to operate a piece of machinery that only exists in one industry can face challenges seeking employment outside that industry (Schewel, 2019).

Early studies of labour immobility in the 1980's focussed primarily on the factors that prevent workers from moving between regions, such as distance, language barriers and lack of social networks. For example, Roback (1982) found that differences in regional wages were primarily explained by differences in amenities and natural features which attracted workers to certain areas and deterred them from going to others. More recent studies such as that by Yang (2020), Wen and Die (2019) and Baas (2021) have focussed on the role of education, skills and job matching in labour mobility. Autor *et al.* (2013) found that the decline in mobility observed in the United States' labour market over the past few decades could largely be attributed to the increasing importance of cognitive and social skills, which are difficult to transfer between occupations and regions. Other studies, e.g., Barth *et al.* (2016), have emphasised the role of job matching and employer-employee relationships in shaping mobility patterns .

Additionally, according to Carling (2002), if an experienced worker who has earned a substantial salary attempts to switch career paths, they may face a significant financial adjustment. This is because alternate jobs they could perform might not make use of their most developed skills, leading to a form of underemployment. For example, an archaeologist may have to find work as a landscaper if no more suitable positions are available. Such circumstances can lead to workers and professionals taking substantially lower pay than they are accustomed to or have been led to expect during their education and training (Schewel, 2019). Thus, a study conducted by Babar *et al.* (2019) stated that the ease with which employees can move from a job in a particular occupation to a job in a different occupation determines how quickly an economy can develop. This is because technological progress, innovation and the creation of new industries and occupations are major components of economic development and lead to the phenomenon of creative destruction, where the new industries and occupations displace older ones (Amrith, 2021). Labour mobility from obsolete industries and occupations into new ones is a necessary part of this process. Low occupation labour mobility can slow the adjustment to new conditions as the economy develops and may even contribute to the darker side of progress known as 'destructive creation' (Akinici, 2022).

Creswell *et al.* (2016:1796) have suggested a novel mobility paradigm that investigates the interaction of mobility and immobility: "how the mobility of some might depend on the immobility, forced mobility, or precarious mobility of others becomes a complex but revealing tangle". This

interaction may be modified by stationary infrastructures that facilitate movement, such as airports. The immobility of one family member may impact the mobility of another's commute to work. There must be recognition of how this link between mobility and immobility plays out in many types of community as the trend shifts to immobility.

**Table 2-1: Comparative analysis of labour mobility and labour immobility**

<b>Characteristics</b>	<b>Labour Mobility</b>	<b>Labour Immobility</b>	<b>Source</b>
Definition	The ability of workers to shift effortlessly between employment opportunities or professions, industries, and geographical regions.	Workers' lack of ability or willingness to move to different jobs, occupations, industries, or geographic locations.	Autor (2015) Bell & Blanchflower (2015)
Impact on Economy	Positive: facilitates efficient allocation of labour, reduces unemployment, and enhances economic growth and productivity.	Negative: reduces efficiency in labour allocation, increases regional disparities in economic development, and limits economic growth and productivity.	Petrou, Dun, Farbotko & Kitara (2021) Preece (2018)
Impact on Workers	Positive: provides opportunities for better jobs, higher wages, and career advancement, and enhances skills and knowledge.	Negative: limits job opportunities, wage growth, and career development, and reduces skills and knowledge acquisition.	Zimmermann (2005) Fletcher (2009)
Factors Affecting	Education and training, job search information and assistance, economic incentives, and social and cultural factors.	Family and personal ties, housing and community characteristics, personal preferences, and psychological and emotional factors.	Ryser, Markey, Halseth & Welch (2019) Creswell (2016)

Source: Compilation by the author

As mentioned above, for the purpose of this study the researcher defines labour immobility as the incapacity or difficulty for employees to migrate between various geographic locations or industries in search of employment. It might be brought on by a number of things, including a lack

of employment possibilities in certain places; inadequate education and training; expensive relocation expenses; and social or legal restrictions. From earlier discussion the researcher identified a few limitations which indicated that labour immobility may result in regional differences in categories such as employment, income inequality and a general decrease in levels of productivity. In addition, labour immobility can also have substantial economic and social repercussions therefore it is of importance to address the various concepts, theories and models which encompass labour immobility, in order to identify the antecedents and provide adequate support structures to improve the previous and current conditions of labour market immobility. This type of immobility is closely linked to structural unemployment in the economy and is addressed and discussed in Chapter 3.

## **2.3 THEORIES OF LABOUR IMMOBILITY**

In the previous section of the study the concept of labour immobility was defined. It is of the utmost importance to review the theories and perspectives associated with labour immobility. These are discussed in the sections below.

### **2.3.1 Theoretical perspectives**

The theoretical perspective of labour mobility and immobility can help explain the factors that influence the different types of levels which refers to drivers and decisions which influence graduates to move or remain in their current locations. Research examining antecedent variables of immobility at different levels is lacking. Investigating drivers at different levels of analysis can reveal important reasons for graduates' immobility.

#### **2.3.1.1 Individual-level drivers**

Individual-level drivers include aspects such as skills, knowledge and experience, personality traits, vocational interests and access to and collaboration with networks and demographic and background characteristics (Scoresby & Park, 2021).

#### **2.3.1.2 Group-level drivers**

- Group-level drivers pertain to factors that impact the behaviour and dynamics of teams or groups within an organisation. These drivers include:
- Group cohesion which pertains to the degree of unity and collaboration within a group and can affect its performance (Carron, Brawley & Widmeyer, 1998).
- Leadership style which refers to the leadership approach of the group leader that can influence group dynamics (Bass & Riggio, 2006).

- Group norms are the norms and shared values within a group which shape the behaviour of its members (Cialdini & Trost, 1998).
- Communication patterns can be viewed as the way information flows within a group and how this can impact decision-making (Bavelas *et al.*, 1950).

#### 2.3.1.3 Firm-level drivers

Firm-level drivers relate to factors that affect an entire organisation. These can include:

- The values and norms common to an organisation's members which can have a significant impact on its strategies and behaviour (Schein, 1985)
- Resources such as finances, technology, and human capital are critical determinants of the capabilities of an organisation (Barney, 1991)
- Leaders in organisations who make decisions on direction based on strategic choices (Porter 1980)
- External market factors like competition or customer demand may drive organisational decisions (Porter, 1985).

#### 2.3.1.4 Institutional drivers

Institutional drivers refer to broader societal and industry-level forces that can shape the behaviour of organisations. These can include:

- Regulatory environment: Government regulations and policies can influence how firms operate (North, 1990)
- Industry standards: Norms and standards within a specific industry can guide business practices (DiMaggio & Powell, 1983)
- Cultural and social norms: Societal expectations and cultural norms can impact corporate behaviour (Scott, 1995).
- Global trends: Trends in globalisation and international markets can affect firms' strategies (Dunning, 1993).

All these drivers have a significant impact on how individuals, groups, firms and institutions function within organisations, affecting their performance, decision-making and overall effectiveness. There are also push and pull factors associated with immobility and these are discussed in the next section.

### **2.3.2 Push and pull factors influenced by graduate labour immobility**

In the field of migration studies, the 'push and pull' factors hypothesis is a theory that is frequently used to explain why individuals migrate from one location to another. This hypothesis aids in comprehending the causes and conditions that either push people or groups out of their home regions or pull them in to new destinations and regions. These causes are frequently connected to environmental, social, political or economic situations. Labour mobility is influenced by both push and pull factors, while immobility is driven by a range of obstacles that prevent workers from moving. These factors are discussed in the following section.

#### **2.3.2.1 Push and pull factors**

Push factors refer to negative conditions in a worker's current location, such as unemployment, low wages, or poor working conditions. These factors can motivate workers to seek employment opportunities in other regions or industries that offer better prospects for work and career advancement (Akee & Yuksel, 2018). Pull factors, on the other hand, refer to the positive attributes of a particular location or industry that attract workers. These may include higher wages, better working conditions, or a desirable lifestyle. However, labour mobility can be impeded by various obstacles or barriers, such as financial constraints, lack of information about job opportunities, and housing affordability. These factors can create a "mobility trap" that prevents workers from moving to regions or industries where they could improve their employment prospects (Blien & Suedekum, 2018). The existence of immobility can exacerbate labour market inequalities and regional disparities in economic growth.

In addition, various theories explain the factors that underlie labour mobility, including the human capital theory, social network theory, and institutional theory. The human capital theory suggests that workers with more education and skills are more likely to move to take advantage of better employment opportunities (Hagen-Zanker *et al.*, 2017). Social network theory posits that workers' connections to social and professional networks can influence their decision to move or stay in a particular location (Bauer & Zimmermann, 1999). Institutional theory suggests that government policies, regulations, and economic incentives can also influence labour mobility.

Overall, the theory of labour mobility and immobility provides a framework for understanding the factors that influence workers' decisions to move or stay in their current locations. By identifying and addressing the obstacles that impede labour mobility, policymakers can help promote more efficient and equitable labour markets, reduce regional disparities, and foster economic growth. There are several economic theories that explain labour markets, labour mobility, and labour immobility. These include the following theoretical models.

### 2.3.3 Theoretical models on graduate labour immobility

According to Dinbabo and Nyasulu (2015:33), a variety of theoretical perspectives have been identified in literature which are used to model migration and labour immobility and the effects thereof. A brief description of some of the main theories primarily associated with labour immobility and migration are provided in Table 2-2.

**Table 2-2: Theoretical perspectives on graduate labour immobility**

Theory	Description
Human capital theory	Human capital goes hand in hand with the level of education and training an individual has obtained (Becker, 2009). This theory states that workers can invest in their skills and knowledge, which makes them more productive and valuable to employers. The higher the level of human capital, the greater the likelihood of labour mobility, as workers can more easily transition between jobs and industries.
Neoclassical economic theory	The real wage difference between two places / countries will drive an individual from a lower to a higher wage region. Wages should be equalised in all regions for migration to stop (Massey <i>et al.</i> , 1993: 432-433).
Search theory	This theory explains the process by which workers find jobs. Workers engage in a search process to find a job that matches their skills and preferences, and firms engage in a search process to find workers with the necessary skills. Labour immobility can arise when workers have limited access to information about job openings, or when there are high search costs (Decreuse & Wilemme, 2019)
World systems theory	Relying on globalisation in terms of the international market leads to more affluent countries dominating transitional capital at the cost of poorer countries (Dinbabo & Nyasulu, 2015:34). This causes higher migration from poorer to more affluent countries. The World Systems theory relies on the Marxist political economy: it emphasises the unequal distribution of economic resources globally (O'Reilly 2013:33).
Dual labour market theory	According to Dinbabo and Nyasulu (2015), the dual labour market theory defines migration as a movement that can be 'pushed' (supply) and 'pulled' (demand) by a variety of factors. This theory suggests that there are two distinct labour markets: a primary market that offers high-paying, stable jobs with good benefits; and a secondary market that offers low-paying, insecure jobs with poor benefits. Workers in the primary market are more likely to have labour mobility, while those in the secondary market are more likely to be immobile.

Institutional theory	This theory suggests that labour market institutions, such as minimum wage laws, collective bargaining agreements and unemployment insurance, can affect labour mobility and immobility. For example, minimum wage laws can make it more difficult for low-skilled workers to find jobs, while collective bargaining agreements can make it more difficult for firms to lay off workers (Acemoglu <i>et al.</i> , 2001).
Social capital theory	As with the World Systems theory of migration, the social capital theory is also motivated by globalisation that encourages movement across various borders (Massey, 2015:279; Rasolonjatovo, 2017:15).

Source: Compilation by author (2023)

Labour immobility, according to neoclassical economists, is an issue caused by labour market frictions such as informational asymmetries and transaction costs. Neoclassical economists believe that initiatives such as education and training programmes that minimise these frictions can assist enhance labour mobility and reduce unemployment (Boeri *et al.*, 2001). Institutional economists, on the other hand, stress the importance of institutions in determining labour market outcomes, such as labour laws and social norms. They contend that labour immobility might be advantageous in some situations, such as supporting social stability and lowering inequality (Acemoglu *et al.*, 2001).

According to Schneider and Limmer (2016), in terms of economic development, labour mobility is often seen as a positive factor, as it allows for the efficient allocation of labour and the transfer of skills and knowledge between industries and regions. Labour immobility, on the other hand, can contribute to regional disparities in economic development and limit the growth potential of individual workers and the economy (Heinz & Ward-Warmedinger, 2006). Therefore, policies aimed at promoting labour mobility, such as education and training programmes, job search assistance and economic incentives, are often seen as important for economic development (Friedman, 1962; Taylor, 1999).

Institutional economists, on the other hand, stress the importance of institutions in determining labour market outcomes, such as labour laws, social norms, and cultural influences (North, 1990). Labour immobility, according to institutional economists, can be desirable under some circumstances since it can foster social stability, reduce inequality, and stimulate long-term investments in local communities (Acemoglu *et al.*, 2001). High levels of labour mobility, for example, might result in 'brain drain', in which highly qualified employees leave poor nations for more wealthy regions, depriving the former of the knowledge required to succeed. According to Johnson (1965:299), the term 'brain drain' was defined as far back as 1965 and was coined by the Royal Society when it described the migration of "scientists and technologists" from post-war

Europe to North America. A brain drain is seen as an economic cost to any country as the large number of people migrating “drain” their country of origin of their knowledge, talent, and technical skills (Beine *et al.*, 2001:276).

Therefore, a study by Fourie (2006:8) states that the receiving country is the only country that benefits from this migration. More recently it is also referred to as “human capital flight”, which describes the migration of highly skilled and educated people (Iravani, 2011:284 & 288). These educated and talented people usually migrate from less economically advanced countries mostly located in Africa, Asia, or Latin America to more developed countries such as Europe and North America. A lack of economic opportunities, especially chances of employment, and political instability in the developing countries seem to be the main drivers for people to migrate (Cummings *et al.*, 2015:7; Khan, 2018:10).

In addition, Beine *et al.* (2001) assert that the brain drain further leads to brain circulation, which describes a circular movement of skilled labour across different sectors, regions, or countries. This means that skilled people leave their place of origin to live and work in another place but return permanently to their place of origin at a later point (Varma & Tung, 2020:1488). The circulation of these individuals is beneficial to both countries as the country of origin regains more experienced citizens, boosting its economy (Saxenian, 2000:2).

Returning migrants can contribute to their country of origin in three ways. Returning migrants improve the country of origin’s financial capital, social networks and entrepreneurship. Migrants who return to their country of origin do so with substantial finances which are usually invested in a new business or housing. Social networks are strengthened around the world when migrants return to their home country (Adda *et al.*, 2014:4).

#### **2.4 SCOPE OF LITERATURE REVIEW: IMMOBILITY, GRADUATES, AND FACTORS**

Holdsworth (2009) provides a critical analysis of youth mobility, arguing that young people's mobility choices appear to be socially created and restricted from a schooling perspective. Holdsworth (2009:1861) critiques how educational institutions and popular society reinforce certain norms that emphasise mobility and separation from parents at the price of social support and interdependence by prioritising mobility over immobility. Forsberg (2017) proposed interpreting immobility for young people as a potential marker of high spatial capital', which refers to young adults having chances in the location they came from. In addition, much of the youth mobility literature focusses exclusively on aspects of migration, and there is little research on decisions (in the form of home university admissions) in favour of immobility (Schewel, 2019). However, recent research has begun to challenge this bias of focussing only on the positive

aspects of mobility by considering the potentially positive aspects of immobility as well (Erickson *et al.*, 2018).

It appears that the literature and research on immobility has only recently emerged as a subject in its own right (Mata-Codical, 2018). Furthermore, the few studies of immobility that have been carried out have focussed only on involuntary immobility due to restrictive immigration policies (Carling, 2002) and as a gendered outcome (Adeel & Yeh, 2018). However, not all immobility is related to government policies or to social inequalities (Bilecen & Van Mol, 2017). Also, the researcher found that past research has not necessarily taken into account how graduates perceive labour immobility and how labour immobility influences their future job opportunities and the labour market's willingness to appoint them after obtaining their qualifications. As Barcus and Werner (2017) suggest, research must also investigate immobility decisions; namely, those in the global south who choose not to move. Other people's mobility affects an individual's immobility, despite a rising acknowledgment of the agency and social value of those who stay (Stockdale & Haartsen, 2018; Schewel, 2019). This implies the relational character of mobility and immobility, as well as the geographical and infrastructural anchors that permit (im)mobility in varied ways (Hannam *et al.*, 2006). Secondly, mobility and immobility may be temporally connected, changing over time and across place, resulting in varied mobility opportunities (Standing, 1981).

One recurring theme of the extensive and expanding literature on skilled international labour migration is mobility. This mobility is frequently regarded as a positive outcome for migrants, and the concept of an "immobile highly skilled migrant" is nearly paradoxical (Babar *et al.*, 2019). However, mobility research in migration studies has challenged our understanding of what it means to be immobile (Glick, Schiller & Salazar, 2013). According to Carling (2002), immobility consists of those who lack the ability or desire to migrate whether it is domestically, nationally, or internationally, as well as those who prefer to settle and remain in their original locations. However, very few people have perfect mobility or immobility; instead, they exist on a spectrum from most to least immobile and from voluntary to involuntary immobility (Khan, 2016).

In addition, Schapendonk and Steel (2014) demonstrate how Nigerian and Sudanese migrant paths to Europe fluctuated between distinct types of mobility and immobility at various stages. Mobility and immobility can occur sequentially, with one following the other or, in certain situations, enabling or disabling the other. Similarly, van Geel and Mazzucato (2017) challenge conventional understandings of obvious differences between mobility and immobility through an examination of Ghanaians growing up in and between the Netherlands and Ghana. Moreover, mobility and immobility may be perceived via the perspective of distance, which will be discussed in more detail in Chapter 2 referring to the barriers of immobility of graduates.

In addition to showing a variety of dynamics and choices within families and groups of people who are immobile, graduates' perceptions on immobility also illustrates that mobility and immobility are relational. Thus, whether or not to treat mobility and immobility as a binary is of importance to the field and literature of the study (Breines *et al.*, 2011; van der Velde & van Naerssen, 2011). Perceptions of the oppositional nature of mobility and immobility are increasingly being challenged (Foster, 2017; Ryser *et al.*, 2017). The question of mobility and immobility takes a particular form in research on higher education (Van der Velde & van Naerssen, 2011; Breines *et al.*, 2019). Mobility is highly revered in education (Waters, 2017) as knowledge is considered a product of circulation. In addition, as previously mentioned, not much research has been done in terms of mobility, immobility and higher education. Therefore, in this study the researcher focusses on labour immobility of graduates and reviewing the role and involvement of higher education institutions abroad and more specifically in South Africa.

**Table 2-3: Scope review of immobility, graduates, and factors**

ID	Author, year, and title	Methodology	Main outcomes and gaps	The country where the research was conducted
1	Babar, Ewers & Khattab, (2019).	A mixed method approach was adopted in the investigation. Data collections tools: Surveys and Interviews.	<p>This research focussed on the im/mobility of highly skilled migrants, which was explored within the context of global talent mobility and neoliberal governance and economic globalisation. According to the report, highly qualified Arab migrants were particularly affected by a lack of security and stability in their native countries, which caused these employees to become involuntarily immobile.</p> <p>The study examined the factors that attracted highly skilled migrants to Qatar and the conditions under which they might leave in the future. More significantly, this immobility depended on the migrant's region of origin.</p>	Qatar
2	Motte-Baumvol & Bonin, (2018).	Immobility was observed in the 2008 FTS by a statistical model that employs standard socio-economic variables, housing-linked variables (i.e., describing the characteristics of the housing itself, whatever its location is), and finally variables associated with the residential	Results indicated that structural issues like living far from work sites or in a remote dwelling, and factors like illness, caring for sick children, vehicle failure, which may result in immobility for one or more working days played a role in determining im/mobility. However, the remaining immobility is likely unintentional or the product of underreporting (soft refusal).	France

		environment (i.e., the spatial location of the housing).	While individual variables, particularly activity type, are the key causes of immobility, the study aimed to investigate the geographical determinants of immobility.	
3	Thomassen, (2021).	This study received over 30 responses of which 15 were from young adults who met all the requirements and were able to meet for an interview. While the calendar-based interviewing techniques were created to expand the richness of data in quantitative life-course research, the qualitative interviewing techniques aid in revealing in-depth information about interviewees of this study.	<p>According to the interviews, family and friends serve as more than just reasons to stay put or obstacles to moving (immobility). Throughout the immobile processes of highly educated young adults, family and friends have repeatedly played significant roles as advisers, influencers, catalysts, exemplars and facilitators.</p> <p>The purpose of this study was to investigate the immobility decisions of Maastricht University alumni who remained in Maastricht after completing their university degree. This study looked into the immobility preferences of graduates who preferred to stay in a Dutch outer urban district where they completed their university degree. Semi-structured, life-calendar interviews were used. The study focussed on how these young people's family and friends influenced their decisions to stay together.</p>	Netherlands
4	Hooijen, Meng & Reinold, (2020).	The analysis is based on mixed methods, including survey data collected in 2015 and 2017 as well as semi structured interviews to find out more about respondents' personal mobility trajectories and the extent to	The data suggested that location specific capital, like other types of capital, influenced the likelihood of realising one's (im)mobility goal, as did past mobility experience and an internship during the study. Furthermore, personality features and unforeseen occurrences, such as a change in relationship	Netherlands, Belgium, and Germany

		<p>which their behaviour reflects their actual (im)mobility preferences.</p>	<p>status, had an impact on whether respondents realised their initial (im)mobility intention.</p> <p>The reasons underlying the difference between (im)mobility intentions and behaviour of recent higher education graduates in the Euregio Meuse Rhine, a cross border region covering the Netherlands, Belgium, and Germany, were examined in this study.</p>	
5	Finn & Darmody, (2017).	<p>This study draws on Euro student V, an international study commencing in 2000 and continuing to date. The fifth wave, on which this study relies, captured data from 2012 to 2015. The analysis in this paper focusses on full-time undergraduate students pursuing an undergraduate degree and not planning on going abroad for study (n = 3365, 33% of the sample).</p>	<p>Drawing on a national survey of students, Euro student V, the findings demonstrated that immobility is predicted by the mother's level of education and family income, showing the salience of socio-economic factors. Age and language proficiency were also visible factors, with the main obstacles to mobility being finances, language barriers and not wanting to separate from family and friends. Trends were also visible in the education institution a student was enrolled in, with those in institutes of technology more likely to be immobile than those in universities. The greatest barrier to study abroad was a financial one. Sixty per cent of students cited this as a reason why they were not interested in partaking in study abroad programmes. After finances, the greatest barriers were language difficulties (32%) and potential loss of earnings in the short term (29%).</p> <p>This article investigated student mobility among Irish university students. It focussed on the characteristics of 'stayers,' or</p>	Ireland

			students who do not intend to study abroad, addressing an underexplored area in current student mobility research. The purpose of this study was to uncover variables that influenced students' decisions not to study abroad.	
6	Mærsk, Sørensen, Thuesen & Haartsen, (2021).	The method used Location-Specific Insider Advantages (LSIA) of students, which analyses the five dimensions in which an individual can accumulate LSIA's through immobility over time.	<p>The survey was initially developed to understand students' experiences of moving to either a peripheral study town (Esbjerg) or a core urban study town (Copenhagen). However, findings indicated that the negative connotations of immobility must be reframed because staying in urban areas in both metropolitan and peripheral areas could be advantageous.</p> <p>The study explored whether and how geographical immobility could be associated with advantages in students' life domains in the form of professional networks, internship experiences, labour market knowledge, social networks and housing situations and whether these conditions varied across urban and peripheral locations for HE institutions.</p>	Esbjerg and Copenhagen.
7	Kotavaara, Kotavaara, Rusanen, & Muilu, (2018).	Qualitative and quantitative	This paper focussed on geographical distribution and inter-regional mobility of university graduates in Finland. Long-term migration behaviour of all university graduates who completed their master's or equivalent degree in 2000–2015 was analysed using geographic information systems (GIS).	Finland

			GIS theory and data were not always easily accessible. A coordinated dataset of university graduates was compiled by Statistics Finland.	
8	Naiara Rodriguez-Pena, (2022).	Drawing on the migration experiences of 17 self-identified Latin-American gay individuals	Sexuality studies were deemed to be vulnerable groups. However, participants faced immobility due to their sexuality and might not be appointed or able to relocate due to their different views and beliefs which were not always socially acceptable across borders.  An aspiration-capability framework introduced four (im)mobility categories – mobility, voluntary immobility, involuntary immobility and acquiescent immobility – which have received considerable attention. However, few studies have examined how people move across such categories.	France
9	Ortiga & Macabasag, (2021).	The study gathered data from in-depth interviews with 30 Filipino nursing graduates who, at the time of the interviews, were working in the Philippines. Participants were recruited from previous research contracts.	Many interviewees chose to let go of their migration aspirations and came to view emigration in temporal terms as well: a short-term venture which may bring 'quick' benefits yet provide little opportunity for long term stability.  The study focussed on how Filipino nurses were unable to emigrate overseas and ultimately chose to remain in the Philippines via the prism of migration temporalities. The study investigated how nurses made these decisions as they faced various types of temporalities, ranging from the hopeful period of 'becoming a migrant' in nursing school to the insecure	Philippines

			temporality of gaining work experience in a climate of staggered employment and short-term contracts.	
10	Lee, Morris & Kemeny, (2018).	Data collection from voluntary participants.	<p>The researchers found that locally rooted individuals—defined as those living in their county of birth—were 7% more likely to support Leave. The impact of immobility was filtered by local circumstances: immobility only mattered for respondents in areas experiencing relative economic decline or increases in migrant populations.</p> <p>The divide between cosmopolitan internationalists who supported Remain and locally based citizens who backed Leave has been a popular explanation for the Brexit result. The first empirical examination was performed to determine whether residential immobility—the notion driving this distinction—was a significant factor in the Brexit vote in this study.</p>	Brexit
11	Basnyat, Carr & Lovelock, (2021).	Empirical data for this qualitative study were collected and analysed using a constructivist approach. Interview data for the study on which this paper is based were collected from Kathmandu, Nepal in two phases in 2015/2016 and 2019, and analysed using a constructivist grounded theory approach. Their ‘immobility’ was	<p>Previous conceptualisations of tourism and hospitality labour mobility were unable to fully describe various economic and socio-cultural conditions that may impact tourism and hospitality labour mobility in non-western developing nations. This study also identified a number of problems that may have an influence on the long-term supply of educated labour (with higher education credentials and skills) in the tourism and hospitality industries, particularly in developing countries.</p>	Kathmandu & Nepal.

		linked to their lack of higher education qualifications and skills. The lack of employment opportunities, despite having higher education qualifications and skills, induced some hotel management graduates to move out of the country within two years of graduating.	The study identified a pervasive phenomenon of 'necessity-induced (im)mobility' that either discouraged or encouraged mobility among tourism and hospitality workers. Several factors highlighted by this study showed that the way mobility was perceived and executed by tourism and hospitality workers in developing countries, such as Nepal, was in stark contrast to how it was perceived in western and developed nations.	
12	Pastore & Choudhry, (2022)	The research examined pertinent literature on the consequences of STWT (school to work transition), NEET, and COVID-19 for the job market. The authors found comparable research articles and reports using the review technique, which aided in strengthening the study's case.	The literature review revealed that COVID-19 had a negative impact on youth all over the globe, particularly in their early careers (STWT). Skill mismatch, underemployment, job losses, wage reductions, health problems, the significance of trade education, precarious employment, and other major effects were found by the writers after reviewing various reports and papers. Furthermore, the role of participating in the labour market regulations and recruiting rewards in encouraging adolescent employment was discussed in this article.	Global
13	Tsurugano, Nishikitani, Inoue & Yano, (2021).	Quantitative	The Labour Force Survey (January 2019 to May 2020) was used to investigate shifts in students' employment circumstances. In addition, the Student Lifestyle Survey was performed late in 2020 to examine the fiscal and health circumstances of university graduates during the pandemic. The study made use of graduates at a national institution in	Tokyo

			Tokyo were questioned about recent changes in their education, jobs, and lives in this survey.	
14	Bauder and Lobo (2019)	Literature review	This study investigated how the immigration status of international graduate students in Canada affected their ability to secure employment. The immigration status of these students in Canada created barriers to employment, including restrictive work permits and discriminatory hiring practices.	Canada
15	Jia, X., Gao, Y., Liu, Y. (2023)	Qualitative and quantitative	The study's findings offered significant value for advancing urban economic growth and improving urban industrial structure. The researchers also supported close city-industry cooperation and integration.	China
16	Greenwood and Freeman (2020)	Qualitative study	This study investigated how the COVID-19 pandemic impacted the labour mobility of recent graduates. It found that the COVID-19 pandemic severely disrupted the labour market, resulting in decreased opportunities and increased competition for recent graduates. Many were facing long-term unemployment or underemployment.	
17	Wang and Stalker (2019)	Mixed method study	This study investigated the experiences of immigrant graduate students in the US labour market. These students faced multiple challenges in securing employment, including language and cultural barriers, discrimination, and lack of	United States

			social networks. However, they also demonstrated resilience and resourcefulness in navigating these challenges.	
18	Maldonado and Sanchez (2017)	Literature review	This study investigated the consequences of graduate labour immobility for the economy and society. Graduate labour immobility could result in economic and social costs, including brain drain, skill shortages, and reduced innovation and competitiveness.	
19	Preece (2018)	Qualitative study	The report was based on in-depth biographical conversations with 25 people from 18 homes. According to the findings, residence security was a required counterbalance to a low-paying and unstable job environment. This study viewed immobility as an active process in which individuals participated in various forms of adaptation and pushback in response to shifting labour market circumstances.	England
20	Ariga & Okazawa (2010)	Quantitative research	This study, carried out in the context of the Japanese labour market, examined the causes and effects of various impacts on the labour market, in particular, the apparent rigidity of core employment, the rapid increase in non-essential employment, the drifting Beveridge curve and stagnant productivity.	Japan

Source: Constructed by the author

## 2.5 DIFFERENT TYPES OF LABOUR MOBILITY AND IMMOBILITY

Labour immobility can take on different forms. This section of the study discusses the various factors of both mobility and immobility. First, the study views the factors of labour mobility before discussing the factors of labour immobility. Table 2-4 provides a brief overview of these factors of which there are not many as all aspects of the theory of labour mobility and immobility have not been fully researched. Consequently, this makes the present study more significant in its attempt to identify more factors and suggest what current and future research could be conducted to fill in the gaps.

**Table 2-4: Factors of labour mobility and immobility**

LABOUR MOBILITY	LABOUR IMMOBILITY	SOURCE
<b>Geographical mobility</b> - how easy is it for a worker to move between different regions and countries to seek new work.	Geographical immobility	Borjas (2017) Massey <i>et al.</i> (2019) Moret (2020) Krugman (1996)
<b>Occupational mobility</b> - how easy is it for a worker to move from one occupation to another.	Occupational immobility	Gasson (1969); Goldin (2014). Gabrie, (2003); Bertrand <i>et al.</i> (2018); Sengupta and Samanta (2022); Bélanger and Silvey (2020) Blau and Duncan (2017); Polachek and Tatsiramos (2018); Autor <i>et al.</i> (2021).
<b>Horizontal labour mobility</b> – this refers to a worker’s ability to move to another job at a similar pay grade, e.g. if the worker loses a job stacking shelves in Tesco, he gets a similar job at Sainsbury’s.	Capital immobility	Moret (2020) Al-Jassar and Moosa (2020) Bauer <i>et al.</i> (2018) Krugman (2015) Faggio <i>et al.</i> (2018) Moretti (2019)
<b>Vertical labour mobility</b> – this refers to the worker’s ability to move up and down the employment hierarchy. For example, can a worker on the minimum wage move up to	Intra-industry mobility, inter-industry mobility	Moret (2020) Al-Jassar and Moosa, (2020) Bauer <i>et al.</i> (2018) Krugman (2015) Faggio <i>et al.</i> (2018) Moretti (2019)

positions of management? Discrimination may cause an invisible glass ceiling which may make it harder for minorities to get promoted.		
<b>Employment mobility</b> - this encompasses various forms of mobility including geographical, occupational, horizontal and vertical mobility. It also focusses on intra-industry mobility, inter-industry mobility as well as educational mobility.	Intra-industry mobility, inter-industry mobility as well as educational mobility	Vasile (2012) Venhorst & Cörvers (2015)
<b>Intra-industry mobility</b> - this refers to a person who transfers between roles or positions within the same industry. For example, when a software developer inside a technology corporation decides to go from a coding job to a managerial role.	Geographical, occupational, horizontal and vertical mobility	Elliot & Lindley (2006) Markusen & Venables (2000)
<b>Inter-industry mobility</b> - this requires a changeover from one industry to another. For instance, a financial services industry accountant may go into a position in hospital administration.	Geographical, occupational, horizontal and vertical mobility	Elliot & Lindley (2006) Markusen & Venables (2000) Baldwin & Gorecki (1990) Dindaroglu (2010)
<b>Educational mobility</b> - this entails receiving further education or training for more specialised or advanced career jobs. A nurse could pursue a master's degree to become a nurse practitioner, for instance.	Geographical, occupational, horizontal and vertical mobility	Torche (2019) Yang & Cheng (2018) Spady (1967) Waibel et al., (2017)

Source: Constructed by the author

### **2.5.1 Geographical mobility**

Geographical mobility refers to the ability and willingness of individuals or groups to move from one location to another for various reasons, such as work, education, or personal reasons. This concept is important in understanding the patterns of migration and population movements within and between countries. In recent years, there has been a growing body of research on the factors that influence geographical mobility, including economic opportunities, social networks, and government policies (Borjas, 2017; Massey *et al.*, 2019). Some scholars have argued that geographical mobility is a crucial driver of economic growth and development, as it enables people to access new job opportunities and learn new skills.

### **2.5.2 Occupational mobility**

Occupational mobility refers to the ability and willingness of individuals to move from one occupation to another. This concept is essential in understanding the dynamics of labour markets and the opportunities available to workers for career advancement. Research has shown that factors such as education, training and work experience can significantly affect an individual's occupational mobility (Blau & Duncan, 2017; Polachek & Tatsiramos, 2018). Other factors, such as technological change and shifts in industry demand, can also play a role in shaping patterns of occupational mobility (Autor *et al.*, 2021). One area of particular interest in the study of occupational mobility is the gender gap. Women have historically faced barriers to occupational mobility due to gender discrimination and societal expectations around gender roles (Goldin, 2014). However, recent research suggests that these barriers are gradually decreasing as more women enter high-skill occupations (Bertrand *et al.*, 2018).

### **2.5.3 Horizontal labour immobility**

Horizontal labour immobility refers to the lack of movement of workers across firms or industries in each geographical area. This can be caused by various factors, including differences in skill requirements or industry-specific knowledge and the lack of available job openings (Bauer *et al.*, 2018). This concept is important for understanding regional labour markets and their ability to adapt to changes in economic conditions. Research has shown that horizontal labour immobility can lead to labour market inefficiencies, such as wage rigidity and skill mismatches (Krugman, 2015; Faggio *et al.*, 2018). This can have a negative impact on productivity and economic growth in the affected regions. Various policies have been proposed to address horizontal labour

immobility, such as investing in training programmes to increase worker skills and promoting the creation of job opportunities in underserved regions (Moretti, 2019). However, the effectiveness of these policies in reducing horizontal labour immobility remains a topic of debate among economists and policymakers.

#### **2.5.4 Vertical labour mobility**

According to Mukomel (2013), vertical labour mobility refers to the movement of an individual within a company or organisation, typically from a lower-level position to a higher-level one. This upward movement within the same company can be achieved through promotions, transfers, or reassignments. Vertical labour mobility is often seen as a sign of career growth and professional development, and can lead to higher salaries, increased responsibility, and greater job satisfaction (Campos-Soria *et al.*, 2015). In addition, Van Mol *et al.* (2021) also indicated that vertical labour mobility can be a positive factor for both employees and employers. For employees, it can provide opportunities for personal and professional growth, as well as increased job security and stability. Similarly, for employers, it can help retain talented employees and build a stronger, more skilled workforce (Teichler & Jahr, 2001).

However, there can also be some challenges associated with vertical labour mobility, particularly if the movement is not managed effectively. In particular, employees may become frustrated if they feel that they are not being given opportunities to advance, or if promotions are not based on merit. Additionally, employers may struggle to identify and develop talent, and may not have the resources to provide adequate training and support to employees as they move up the organisational ladder (Albert *et al.*, 2023). A study by Jia *et al.* (2023), highlighted the importance of graduate employment forecasting through the consideration of employment mobility characteristics, discussed in detail in Section 2.6.4.

#### **2.5.5 Graduate employment forecasting considering graduate employment mobility**

According to Jai *et al.* (2023), graduate employment forecasting is an important aspect of higher education and labour force development. It includes forecasting the employment outcomes and any possible future career prospects of recent graduates founded on various factors, which may involve some economic conditions, industry trends, educational qualifications, and individual skills and attributes (Tang, 2022). However, a study conducted by Zheng (2014) stressed that to create a comprehensive forecast, it is crucial to consider employment mobility, which refers to the ability

of individuals to move between different jobs, industries, and locations over the course of their careers. The importance of considering employment mobility in graduate employment forecasting and exploring the key factors and challenges involved is discussed below.

### **2.5.5.1 Importance of considering employment mobility in graduate employment forecasting**

#### **2.5.5.1.1 Salary expectation forecasting**

According to Suleman *et al.* (2023), workplaces are evolving at an alarmingly fast rate. Several causes have contributed to these shifts, including new technology as a result of the fourth industrial revolution, political instability such as the conflict in Ukraine, and worldwide health issues as a result of the Covid-19 epidemic. According to Ortmans (2018), while students enrol in programmes like the MBA to get the necessary technical and management skills, they are also looking for a return on investment in the form of higher salaries. Graduate salary expectations have also been a debatable topic since most graduates complete a certain degree with the expectation that they will also receive a salary consistent with an amount that they perceive as acceptable.

In South Africa, the average graduate programme income is R378 000 per year, or R194 per hour. Starting salaries for entry-level professions start at R180 000 per year, with most experienced professionals earning up to R 3456 000 per year. Salary expectation forecasting is a crucial aspect of human resource management as it helps organisations plan and allocate their financial resources effectively (Osipova, 2014). One approach to forecasting salary expectations is the use of quantitative methods, such as regression analysis or time series analysis. These methods involve analysing historical salary data, market trends and economic indicators to predict future salary levels (Zhang & Cheng, 2021). For instance, a study by Smith and Johnson (2019) used regression analysis to forecast salary expectations for entry-level positions in the technology industry based on factors like education level, years of experience and job location. Through the use of this method, organisations can estimate the potential wage bill and make better informed decisions regarding benefits and budgeting as well as compensation packages in the long-run (Weligamage & Siengthai, 2003).

In addition to quantitative methods, qualitative approaches are also important in salary expectation forecasting. Qualitative research techniques, such as surveys or interviews with

employees and industry experts, provide valuable insights into factors that influence salary expectations. For example, Li *et al.* (2020) conducted a survey among employees in the finance sector to understand how job characteristics, organisational culture and personal values impact their salary expectations. The findings from such studies can help organisations identify key drivers of employee expectations and tailor their compensation strategies accordingly. Overall, combining both quantitative and qualitative approaches in salary expectation forecasting ensures a more comprehensive understanding of the factors influencing wage levels within an organisation or industry.

#### **2.5.5.1.2 Industry selection forecasting**

In forecasting industry selection, rigorous analysis and a deep understanding of economic and market trends are critical. A comprehensive assessment of macroeconomic indicators, such as GDP growth, inflation rates, and interest rates, is essential to identify sectors with promising growth prospects. For instance, researchers (Smith & Johnson, 2019) have demonstrated the significance of GDP growth in predicting the performance of industries. Moreover, examining microeconomic factors, including industry-specific factors and company financials, can help in refining the forecast. Porter's Five Forces analysis, as suggested by Johnson *et al.* (2017), can be a valuable tool to evaluate the competitive dynamics within a particular industry, aiding in the selection process.

Additionally, the forecasting process should incorporate a review of industry-specific trends and technological advancements, which play a pivotal role in shaping the competitive landscape. For instance, Robinson and Brown (2020) have illustrated the influence of disruptive technologies on industry dynamics. Historical performance data and market research are also vital components in industry selection forecasting. Ensuring a well-rounded understanding of market conditions through diverse data sources (Miller & Williams, 2018) can improve the accuracy of industry selection forecasts. In conclusion, a multifaceted approach that considers both macroeconomic and microeconomic factors, industry-specific trends and historical data is necessary to forecast industry selection effectively.

#### **2.5.5.1.3 Career mobility and career development forecasting**

Career mobility and career development forecasting are vital aspects of human resource management and workforce planning. As researchers (Smith & Johnson, 2019) have highlighted,

these processes are interconnected, with career mobility often being a crucial component of individual career development. Career development forecasting entails assessing an employee's current skills and competencies, aligning them with organisational goals, and anticipating potential future roles and responsibilities (Brown, 2018). It often involves the use of performance assessments, feedback, and training programmes to nurture talent and facilitate upward or lateral mobility within the organisation. Career mobility, on the other hand, refers to the actual movement of employees within or between organisations, which can be predicted through effective succession planning (Robinson & Williams, 2020). Proper forecasting in this context can enhance employee retention and job satisfaction, as well as minimise skill gaps in critical positions.

To ensure effective career mobility and development forecasting, it is essential to incorporate labour market analysis and workforce trends (Miller & Anderson, 2021). These external factors help organisations anticipate the availability of talent and the potential competition for skilled professionals in the job market. Career development forecasting should also consider demographic shifts and generational preferences, which can influence mobility patterns and the design of career development programmes (Jones, 2017). The combination of internal assessment, external market analysis and consideration of demographic dynamics creates a comprehensive approach for career mobility and development forecasting, contributing to the overall success and sustainability of an organisation's workforce strategy.

## **2.6 FORMS OF LABOUR IMMOBILITY**

The immobility of factors of production is one of the reasons for labour market failure (Van Houtum & Van Der Velde, 2004). There are two main categories of immobility factors: geographic immobility and occupational immobility; and in addition to those two the author also identified capital immobility as a form of labour immobility.

### **2.6.1 Occupational immobility**

Bradbury *et al.* (1986) defined occupational immobility as what happens when the movement of factors of production between different sectors of the economy is impeded, leading to unemployment and inefficient use of factors of production. Therefore, many graduates may often experience occupational immobility. Laid-off workers in industries such as steel and heavy equipment may find it difficult to find new jobs especially if they haven't gained new skills and knowledge on innovation and the use of technology in the industry. In addition, occupational labour immobility also refers to the inability of workers to find work or change occupations to meet

industry needs (Gasson, 1969; Felderer & Drost, 2000; Erickson *et al.*, 2012). Where conditions and labour markets allow for high levels of occupational labour mobility, this helps maintain high levels of employment and productivity. Governments can provide retraining to help workers acquire the necessary skills and speed up the process (Clarke, 2008).

Policies to improve the mobility of labour which leads to a reduction in occupational immobility include:

- Investing in training schemes for the unemployed to boost their human capital to equip them with new skills which can be transferred from one occupation to another
- Subsidies which make provision for vocational practices by privately-owned business sector which may assist in raising the skills level of graduates in the future
- Supply-side strategies that seek to reduce structural unemployment by focussing on microeconomic elements of the labour market. Increased financing for programmes aimed at improving the human capital of unemployed individuals is one example of a supply-side strategy. The UK government recently imposed a fee on UK businesses to finance new apprenticeships. The primary goal is to invest more resources in professional education and empower people with the new skills needed in a shifting industry. People who gain abilities such as software coding, computer-aided design, or a new language become more appealing to employers. This should aid in addressing the skills gap that characterises structural unemployment and reducing job immobility (Gasson, 1969; Goldin, 2014; Gabriel, 2003; Bertrand *et al.*, 2018; Sengupta & Samanta, 2022; Bélanger & Silvey, 2020; Blau & Duncan, 2017; Polachek & Tatsiramos, 2018; Autor *et al.*, 2021).

## **2.6.2 Geographical immobility graduate perceptions**

Despite the great focus on mobility, graduates' choice of geographical immobility has received increasing attention from academics in recent years (Faggian *et al.*, 2017; Farrugia, 2016, 2019; Muilu & Rusanen Sage *et al.*, 2012; Stockdale & Haartsen, 2018; Thissen *et al.*, 2010). While previous research has suggested that brain drain in young adults is involuntary but necessary due to lack of access to higher education (Yndigegn, 2003), additional research also shows that young adults' peripheral has suggested that brain drain from areas can also be explained by social norms (Corbett, 2007; Pedersen & Gram, 2017).

Geographic immobility refers to the obstacles that force people to relocate from one area or country to another in search of employment. According to Maersk *et al.* (2021), there are several

causes for geographic immobility, which can be beneficial or detrimental to higher education pupils. Some of the most significant factors are the economic costs of leaving one's homeland and the failure to cover the costs of selling houses and removing assets, along with the high cost of renting property somewhere else. These factors were followed by the difference in cost of living between certain regions and countries. Furthermore, Motte-Baumvol and Bonin (2018) found that families and social ties are also among the geographical barriers that limit individuals' decision to move. Moreover, the variations in house prices can lead to a shortage of affordable housing in many areas.

For these reasons people are forced to move nearer to rural areas where housing is considerably cheaper, but they might have to face both cultural as well as language barriers. More extensively, the list of demanding situations faced by migrants living and working in other countries is experienced by people of various nationalities, genders, age, and sectors, suggesting that lack of confidence derived from a lack of citizenship is a widespread phenomenon. Thus, instead of emphasising resourcefulness of people and places in the face of such obstacles, immobility primarily means failure to move to places of opportunity and growth (MacKinnon & Derickson, 2013). Reconceptualising immobility as a positive process allows for an in-depth study of the different responses people make to changing local labour markets while staying local.

Among many other problems faced through geographic immobility is the occurrence of immobile labour when people face the costs and hurdles of having to move to find new jobs. This problem particularly affects lower-income families. Stagnating in the same location is often due to large regional differences in the cost of buying and renting a home. According to Agrawal and Phillips (2020), in London, for instance, on average, rents are over 50% of median disposable income. One of the policy approaches is housing reform that combines the deregulation of planning regulations, a new tax on the capital value of land owned by investors with planning permits, and an increase in stamp duty on second houses.

However, this method has risks and disadvantages. For example, policy effectiveness depends on the type of new housing being built. Firstly, will this housing be built for young people? Secondly, what percentage of new homes meet the affordable price range? Thirdly, will home builders instead focus on properties that add value to the area without addressing the root causes of below-average family housing needs? Lastly, there are many second homes and vacant houses in the construction of collective housing, and the problem of poor allocation efficiency has

not been resolved. Therefore, a report by Pastore and Choudhry (2022) concluded that the times ahead will be difficult for the school-to-work transition for graduates post-COVID-19. This is due to slow economic development, and scarcity of productive employment possibilities. The youth and adult unemployment rates are high, and work marketplaces have become more competitive. The younger population now has no option but to upgrade their skill-set or other expertise. On the one hand, technical and vocational education and training (TVET) and colleges must improve their employable knowledge and skills, while active labour market policies are required to promote their involvement in labour markets both on a global and national level.

Policies to improve the mobility of labour which leads to a reduction in geographical immobility (Borjas, (2017); Massey *et al.*, (2019); Moret (2020); Krugman (1996)) entail the following proposals/ points:

- Reforms to the housing market designed to improve the supply and reduce the price of rented properties and to increase the supply of affordable properties
- Specific subsidies for people moving into areas where there are shortages of labour – for example teachers and workers in the National Health Services
- The supply-side strategy could be steps to improve labour mobility across borders. Moving to a new area in the quest of employment is often prohibitively expensive. As a result, one approach that could help is to make rented housing more accessible and cheaper. The government may opt to boost spending in new social housing by permitting local governments to borrow to construct more homes. This would boost the availability of affordable social homes while also putting downward pressure on private-sector prices. Housing affordability is a barrier to individuals getting employment. Constructing more houses would also boost labour demand.

### **2.6.3 Capital immobility**

According to Carmen *et al.* (2014), capital immobility refers to the situation where capital or financial resources cannot easily move between different countries or regions. This can be due to several factors, including legal and regulatory barriers, currency restrictions, political instability and economic conditions.

Some examples hindering capital mobility include the following:

- **Capital controls:** Some countries may impose restrictions on the movement of capital in and out of the country. This may include limits on the amount of money that can be transferred,

taxes on foreign currency transactions, or requirements for approval from government authorities

- **Currency restrictions:** The exchange rate of currencies can impact capital mobility, and some countries may restrict the use of foreign currencies or impose currency controls
- **Political instability:** Political instability, such as civil unrest, wars or political conflicts can make it difficult or risky for investors to move their capital in and out of a country
- **Economic conditions:** Economic factors such as high inflation, debt and financial instability can also restrict capital mobility, as investors may be hesitant to invest in a country with uncertain economic conditions ((Moret, (2020); Al-Jassar & Moosa, (2020); Bauer *et al.*, (2018); Krugman, (2015); Faggio *et al.*, (2018); Moretti, (2019)).

However, capital mobility is important for economic growth and development, as it allows for the flow of financial resources to where they are most needed. However, capital immobility can also have negative consequences, such as limiting access to foreign investment or preventing capital from flowing to countries with high growth potential (Zheng *et al.*, 2022).

## **2.7 FACTORS THAT CONTRIBUTE TO LABOUR IMMOBILITY**

A review of the literature on labour immobility reveals several contributing factors , one of which is the lack of information on job opportunities and working conditions in other regions. In a study by Clark, Hartley and Wright (2015), it was found that workers who lacked information on job opportunities in other regions were less likely to consider moving to those regions. This suggests that providing better information to workers could help to reduce labour immobility. Other related factors of labour immobility include the following:

### **2.7.1 Cost of moving**

Another factor that contributes to labour immobility is the cost of moving. According to a study by Dustmann and Kirchkamp (2002), the cost of moving can be a significant barrier to labour mobility, particularly for low-skilled workers. The study found that low-skilled workers were less likely to move to other regions due to the high cost of relocating. This suggests that policies aimed at reducing the cost of moving could help to increase labour mobility. In South Africa, the cost of moving is also a significant barrier to labour mobility. According to Landau *et al.* (2019), high transportation costs and the lack of affordable housing in urban areas are key factors that limit labour mobility in South Africa. These factors disproportionately affect low-income workers and contribute to spatial inequality. (some repetition here)

Furthermore, the cost of moving is not only limited to financial resources but can also have social and emotional costs. Workers may face the challenge of leaving their family and community behind, which can affect their mental health and overall well-being (Ellis & Holloway, 2019).

### **2.7.2 Social and cultural**

In addition, social and cultural factors can also contribute to labour immobility. Algan and Dustmann (2014), found that workers were more likely to move to regions where they had family or social connections. This suggests that social networks can play an important role in labour mobility. Furthermore, policy factors can also contribute to labour immobility. Garcia-Penalosa and Laffargue (2005) found that labour market institutions, such as minimum wage laws and employment protection legislation, can discourage labour mobility. The study found that countries with more rigid labour market institutions had lower levels of labour mobility. This suggests that policy reforms aimed at making labour markets more flexible could help to increase labour mobility.

In addition, unfamiliar social and cultural conditions affect workers, particularly those who face discrimination or barriers to integration in new communities (Kleykamp, 2010). These conditions can include language barriers, discrimination based on race or ethnicity, and cultural differences that make it difficult for workers to adapt to new environments (Borjas, 2015). Empirical research has found that social and cultural factors can limit labour mobility, particularly for immigrant workers. Kleykamp (2010) found that language barriers can limit the job prospects of immigrant workers, particularly those with limited English proficiency. Borjas (2015) found that discrimination against immigrant workers can limit their access to job opportunities, particularly in fields where employers may be hesitant to hire workers with foreign qualifications or experience.

To address the impact of social and cultural factors on labour mobility, policymakers may need to consider interventions that promote greater integration and support for immigrant workers. For example, policies that provide language training and support for immigrant workers can help them improve their job prospects and integrate more effectively into new communities (Bodvarsson & Van den Berg, 2013). Additionally, policies that promote diversity and inclusion in the workplace can help to address discrimination and biases that can limit job opportunities for minority workers (Dobbin & Kalev, 2016). Therefore, social, and cultural factors can limit labour mobility, particularly for immigrant workers who face discrimination or barriers to integration in new communities.

A study conducted by Devine and Ash (2022) highlighted the importance of targeted interventions that provide support for immigrant workers, such as language training and diversity initiatives in the workplace. By addressing the impact of social and cultural factors on labour mobility, policymakers may be able to promote greater economic growth and social inclusion.

### **2.7.3 Family ties**

Another contributing factor to labour immobility is family ties. Family ties and responsibilities are often cited as a factor that can limit labour mobility, particularly for workers with children or elderly dependants (Cooke, 2003). In such cases, even if the job prospects in a new location are promising, the costs and challenges associated with uprooting a family can be prohibitive. According to the ILO (2017), family responsibilities are the most common reason why women are less likely to move for work opportunities.

The presence of family members in a specific location can make it difficult for workers to move to new job opportunities, particularly if they lack support systems in the new location (Kroft & Pope, 2014). Additionally, family responsibilities can create a sense of obligation or commitment to stay in a particular location, particularly if workers feel that they need to be close to their family members to provide care or support (Chiswick & Miller, 2010). According to Anderson *et al.* (2021), research has found that family ties can limit labour mobility, particularly for women and workers with children. Kroft and Pope (2014) found that female workers with children are less likely to move to new job opportunities than male workers or female workers without children. Chiswick and Miller (2010) found that family responsibilities can limit labour mobility for immigrant workers, particularly those from cultures that place a high value on family obligations.

To address the impact of family ties on labour mobility, policymakers may need to consider interventions that provide support for workers with family responsibilities. For example, policies that provide affordable childcare or eldercare services can help workers balance family responsibilities with job opportunities (Gornick & Meyers, 2003). Additionally, policies that provide flexible work arrangements, such as telecommuting or flexible schedules, can help workers balance family responsibilities with job demands (Gareis, 2018). By addressing the impact of family ties on labour mobility, policymakers may be able to promote economic growth and help workers achieve their full potential.

#### **2.7.4 Financial constraints**

According to Aaronson and Mazumber (2008), another key factor is financial constraints. Workers may not have the financial resources to cover the costs of moving, including transportation, housing, and living expenses. This is especially true for low-skilled and low-wage workers who may be living paycheck to paycheck. In some cases, employers may offer relocation packages or incentives to offset these costs, but such benefits are not always available. This is linked to the lack of skills and qualifications, which is another obstacle that can prevent workers from moving to pursue job opportunities (Card & Krueger, 1991). If a worker lacks the necessary education, training, or experience to secure a job in a different region, it can be difficult to justify the costs of relocating. As found by Li and Liu (2006), this is particularly true in industries where employers require specific certifications or licenses that may not be transferable across regions.

Financial constraints can, therefore, create barriers to labour mobility, limiting the ability of workers to move to new job opportunities. These constraints can be caused by various factors, including inflated living costs in certain regions, lack of access to credit or financial resources, and debt burdens (Chen & Juhn, 2008). Additionally, workers may be hesitant to leave their current jobs if they are uncertain about their ability to find new employment, particularly if they lack a financial safety net (Hollenbeck & Williams, 2014). Therefore, in support of the view of Hollenbeck and Williams (2014), research by Chen and Juhn (2008) has shown that financial constraints can limit the ability of workers to move to new job opportunities, particularly for workers with lower levels of education and those in industries with lower wages. Hollenbeck and Williams (2014) also found that debt burdens can limit labour mobility and create barriers to job transitions.

To address financial constraints and promote labour mobility, policymakers may need to consider targeted interventions that supply financial support and incentives for workers to move to new job opportunities. For example, policies that provide financial aid for job training or relocation can help workers acquire the skills necessary to move to new job opportunities (Bartik & Bishop, 2011). Additionally, policies that promote regional economic development or investment can create new job opportunities in different regions or countries, reducing financial barriers to labour mobility (Rogers & Wang, 2012).

### **2.7.5 Language barriers**

Gross and Schmitt (2014) indicated that language barriers can also be a significant challenge for workers seeking employment in regions where a different language is spoken. In such cases, even if a worker has the necessary skills and qualifications, the inability to communicate effectively with colleagues, customers, or clients can limit job opportunities and hinder career advancement (Massey & Schez, 2010). Previous research from Khan (2018) has found that language barriers can significantly impact labour mobility and economic outcomes. For example, Friedberg (2000) found that immigrants in the United States who spoke English well were more likely to move to new states in search of job opportunities. Similarly, Guiso *et al.* (2006) found that language barriers can limit entrepreneurship, as immigrants who speak the local language are more likely to start businesses.

Language barriers may also impact the wages and employment chances of workers. According to Borjas' (1995) research, immigrants to the United States who spoke English well made more money than those who didn't. Similar findings were made by Constant and Massey (2002), who discovered that businesses may be less inclined to recruit workers who do not speak the regional tongue due to linguistic obstacles. Therefore, language barriers can be a significant obstacle to labour immobility, limiting job opportunities and hindering economic growth. A study conducted by Shier *et al.* (2009) further examined the causes and consequences of language barriers in labour markets, highlighting the role of social and human capital in explaining these barriers. Policymakers may need to consider targeted interventions to help workers acquire language skills and access new social networks to promote labour mobility and economic growth (Khan, 2018).

### **2.7.6 Government regulations and policies**

Government regulations and policies can also contribute to labour immobility. For example, restrictions on immigration or work permits can make it difficult for workers to move to different regions or countries. Similarly, zoning laws, building codes and other regulations can limit the availability of affordable housing in certain areas, making it difficult for workers to relocate to these regions (Molloy *et al.*, 2014).

One theoretical view is that government regulations and policies can create barriers to labour mobility. For example, regulations that restrict the mobility of workers, such as employment contracts or non-compete clauses, can limit the ability of workers to move to new job opportunities

(Lipsey, 2000). Additionally, policies that create disincentives for firms to relocate, such as high taxes or regulations on business operations, can limit the availability of jobs in different regions or countries (Salamon & Sokolowski, 2002). Another theoretical view is that government policies can facilitate labour mobility by reducing barriers and providing incentives for workers to move. For example, policies that provide job training or relocation assistance can help workers acquire the skills necessary to move to new job opportunities (Bartik & Bishop, 2011). Additionally, policies that promote regional economic development or investment can create new job opportunities in different regions or countries (Rogers & Wang, 2012).

Previous studies have examined the impact of government regulations and policies on labour mobility and economic outcomes. For example, Haltiwanger *et al.* (2013) found that non-compete clauses can limit the ability of workers to move to new job opportunities, particularly in industries with high levels of innovation. Autor *et al.* (2013) found that trade policies can impact labour mobility, with workers in industries affected by trade policies more likely to move to new job opportunities. Government policies can also impact job opportunities and economic growth. Bartik and Bishop (2011) found that state-level policies that provide job training and relocation assistance can increase the employment and earnings of workers. Another study by Rogers and Wang (2012) found that policies that promote regional economic development can create new job opportunities and increase economic growth in different regions or countries.

Testaverde *et al.* (2017) examined the impact of different government policies on labour mobility, highlighting the role of regulations and policies in creating barriers and incentives for workers to move. To promote economic growth, policymakers may need to consider targeted interventions to reduce barriers and provide incentives for workers to move to new job opportunities.

## **2.8 FRAMING IMMOBILITY**

Framing immobility can be in terms of how societies, governments and people interpret and create the concept of immobility or a lack of mobility within a particular setting. It encompasses the conceptual frameworks, narratives and visuals that influence how we perceive immobility, as well as its causes and effects. Framing immobility can be associated with the aspiration-capability framework and its role and importance when analysing this phenomenon of immobility.

In accordance with Schewel (2020), the aspiration-capability framework is a theoretical framework that seeks to understand social mobility and immobility by examining the interaction between individuals' aspirations and their capabilities. It suggests that aspirations, or individuals' goals and

desires, are shaped by their social context, including their family background, education and social class (Nussbaum & Sen, 1993; Sen, 2014). At the same time, individuals' capabilities, or their ability to achieve their aspirations, are influenced by their personal attributes such as intelligence, skills, and health, as well as external factors such as economic and political opportunities. For the study of mobility and immobility, the aspiration-capability framework offers a straightforward yet insightful conceptual framework (Burchardt, 2010). As Stockdale and Haartsen (2018) argue, immobility and migration studies run the risk of becoming even more segregated if theoretical frameworks particular to immobility and remain unchanged.

### **2.8.1 Aspiration-capability framework**

The aspiration/ability paradigm focusses on splitting up migration into two distinct steps: assessing migration as a possible course of action and realising one's actual mobility or immobility at a particular moment (Carling, 2002; Carling & Schewel, 2018). The aspiration-capability framework is seen as a useful conceptual approach for studying mobility and immobility because it emphasises the importance of understanding both individual and structural factors that contribute to social mobility. It highlights the role of aspirations in shaping individuals' actions and decisions, and the importance of providing opportunities for individuals to develop their capabilities. By examining the interplay between aspirations and capabilities, the framework provides insights into the complex processes of social mobility and can inform policies and interventions aimed at promoting greater social mobility (Carling, 2002).

The framework proposes that individuals' social mobility is influenced by the degree to which their aspirations and capabilities align. If their aspirations are higher than their capabilities, they may experience frustration and feel stuck in their social position. Conversely, if their capabilities are higher than their aspirations, they may be more likely to experience upward social mobility.

According to Carling, migration entails both aspirations and capabilities, but immobility emerges from a lack of either. The resulting "aspiration/ability model," as he names it, suggested three mobility categories: mobility (defined as having both the aspiration and ability to migrate); involuntary immobility (defined as having the aspiration but not the ability to migrate); and voluntary immobility (defined as having the ability but not the aspiration to migrate (Carling & Schewel, 2018) However, after researching shifting mobility patterns in Morocco's Todgha Valley, De Haas (2003, 2010) replaced the term "ability" with the theoretically richer term "capability" to analyse how (im)mobility outcomes relate to development. De Haas drew upon Amartya Sen's

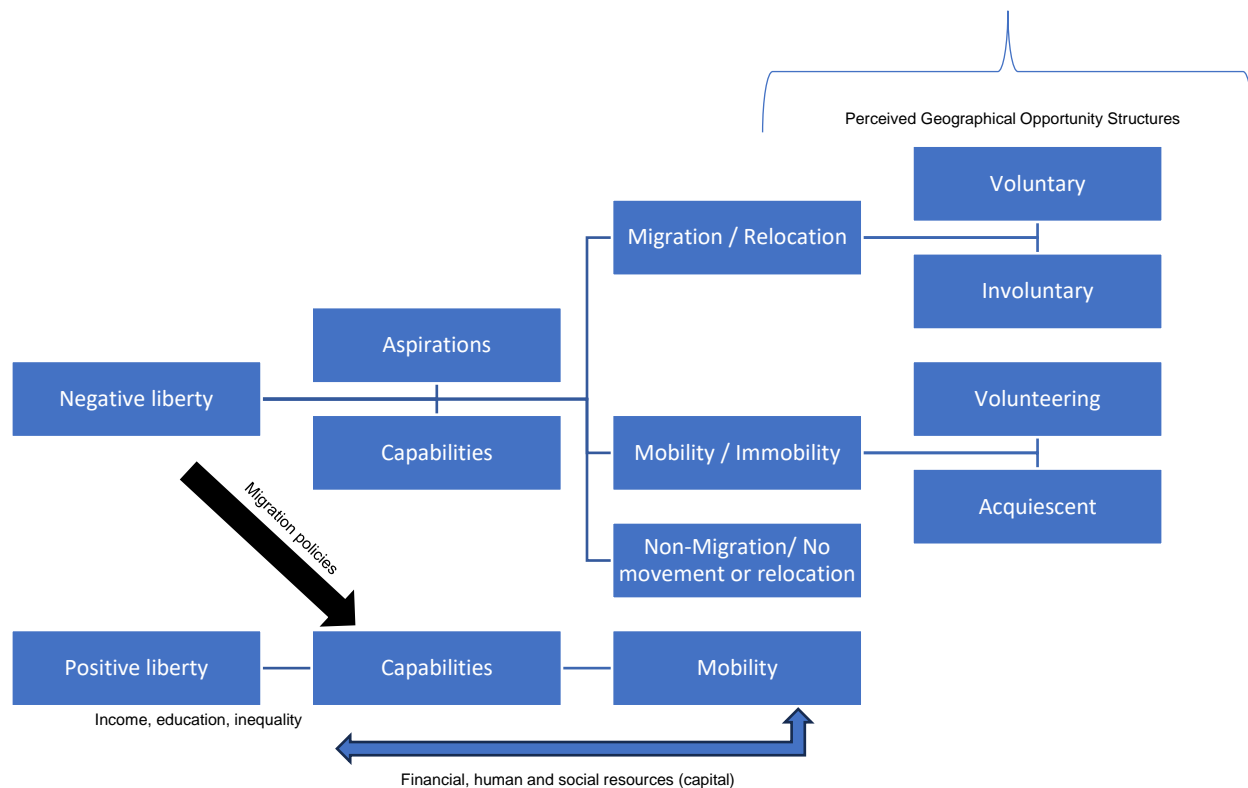
capacity approach, a normative framework that views the freedom to pursue well-being as the ultimate goal of progress and proposes that it be evaluated in terms of people's capacities to do and be what they have reason to value (Sen, 1999).

Human mobility, therefore, according to De Haas (2014), is best understood as a function of the desire and ability for movement. He debunked the widely-held belief that development would assist poor countries in addressing the root causes of migration by demonstrating that, on the contrary, development — which frequently increases income, access to media and education, infrastructure, and security — tends to increase people's aspirations and capacities to migrate (i.e., their financial, social, and human capital). According to Carling (2001, 2002) the aspiration/ability paradigm benefits from the idea of capability in two significant ways. The idea of capacity adds dynamic to the aspiration/ability model by more directly linking development processes with immobility results, as shown in Figure 2-1 which illustrates the relationship between aspirations and capabilities in the aspiration-capability framework (Burchardt, 2010).

This lays the framework for investigating why people move between immobility categories over time. Recognising that the aspiration-capability paradigm should not be restricted to "developing country" circumstances is crucial. Expanding people's capacity to live the lives they value is a crucial issue for every civilisation, as Sen initially noted. Examining how societal changes affect one's capacity and desire to emigrate or remain is relevant in all socioeconomic circumstances. Second, the idea of capability makes a more direct connection between the capacity to emigrate (and the capacity to remain) and the idea of "freedom" and, consequently, human rights (Preibisch *et al.*, 2016). De Haas (2014) contends that people benefit from having the choice to relocate or stay, regardless of how they choose to exercise that freedom.

An important limitation of the work of Carling and De Haas is their relative neglect of the category and determinants of voluntary immobility. Although Carling (2002) introduced the category of voluntary immobility, his main theoretical and experimental focus was on the causes and experiences of involuntary immobility. De Haas (2003) focusses on the determinants of the development of aspiration and capacity to migrate, rather than the determinants of immobility. Therefore, many questions about voluntary immobilisation remain. What are the aspirations and abilities of those who do not want to migrate? In the category of voluntary immobilisation, it is possible to distinguish between those who have and those who are not able to migrate and question whether the immobility of those who cannot migrate is the same as that of those who

are able to migrate. The author found it useful to include in the framework a fourth category of immobilisation: acceptance immobility, to highlight those who do not want to and cannot migrate. The word 'accept' implies not resisting constraints. The category of immobility challenges the neoclassical, push-pull view (for example, Todaro 1969; Sjaastad 1962) that assumes that the desire to migrate must be greatest among those who would benefit most (often economically) from migration. Since Ravenstein (1885) proposed the first "migration law", it has been assumed that people will move from low-income places to high-income places (De Haas, 2011).



**Figure 2-1 The relationship between aspirations and capabilities in the aspiration-capability framework.**

Source: Adapted from Burchardt, 2010.

However, even though migration frequently results in big economic benefits and even while push factors are important for many of the world's poor, many people whom migration theories would expect to be interested in migrating, may not really be. For instance, preliminary findings from a study on young adults' aspirations for migration in Senegal revealed that more than one-fourth of

those who lacked the resources to meet their most basic needs also had no interest in migrating (Schewel 2015). This finding defies the predictions of current migration theories.

## **2.8.2 Migration framework and graduate perceptions**

There are various frameworks for understanding migration, but one of the most used is the push-pull framework. This framework suggests that migration is influenced by a combination of factors that push individuals out of their home country and pull them towards a new destination (Matsui & Raymer, 2020). Push factors are typically negative circumstances or conditions in the home country that make individuals want to leave. These can include economic factors such as poverty, lack of employment opportunities, or low wages; political factors such as conflict, persecution, or lack of freedom; social factors such as discrimination or inequality; or environmental factors such as natural disasters or climate change (Massey *et al.*, 1998).

Pull factors, on the other hand, are typically positive circumstances or conditions in the destination country that attract migrants. These can include economic factors such as job opportunities, higher wages or better living standards; political factors such as stability, security or freedom; social factors such as family reunification or access to education; or cultural factors such as the desire for a better quality of life or to experience a different way of life (De Haas, 2021).

While the push-pull framework is a useful starting point for understanding migration, it has been criticised for oversimplifying the complex and multifaceted reasons why people migrate. Some scholars have suggested alternative frameworks, such as the network theory of migration, which emphasises the role of social networks and relationships in facilitating migration (Van Hear *et al.*, 2020). Overall, frameworks for understanding migration can help researchers and policymakers better understand the factors that drive migration and develop more effective policies and interventions to support migrants and their host communities.

### **2.8.2.1 Voluntary immobility**

Voluntary immobility refers to the deliberate decision of an individual or a group of individuals not to migrate or move from their current location. This can be due to a variety of reasons, including personal preferences, cultural and social ties, economic or political stability, or a lack of opportunities in potential destination countries (Morrison, 2017).

For some graduates and specific individuals, voluntary immobility may be a matter of choice, as they may prefer to stay in their home country or community due to strong emotional or cultural ties, a sense of belonging, or a desire to maintain their way of life. Others may feel that the risks and uncertainties associated with migration outweigh the potential benefits and choose to remain in their current location (Morrison, 2017). Voluntary immobility can also be influenced by external factors such as policies and regulations that limit or restrict migration, or by economic and social conditions that create barriers to mobility, such as poverty or discrimination (ILO, 2021).

While voluntary immobility is often seen as a personal choice, it can also have wider social and economic implications. For example, in some countries, a lack of mobility can lead to a shortage of skilled workers, or a brain drain, as highly educated individuals may choose to leave in search of better opportunities. On the other hand, voluntary immobility can also contribute to the development of local communities, as individuals who remain in their home communities may invest in local businesses, services, and infrastructure (Morrison, 2017).

Overall, voluntary immobility is a complex and multifaceted phenomenon that can be influenced by a range of personal, social, and economic factors. Understanding the reasons why individuals choose to remain in their current location can help policymakers and researchers develop more effective policies and interventions to support their needs and aspirations.

### **2.8.2.2 Immobility volunteering**

Immobility can be seen as the opposite of migration and refers to the state of staying in one's place of origin or current location for an extended period. Immobility can be voluntary or involuntary and can be influenced by a variety of factors, including economic, social, political and cultural conditions (ILO, 2021).

In the migration framework as indicated in Figure 2-2, immobility is often seen as a result of push and pull factors that prevent individuals from migrating or deter them from leaving their current location. For example, economic conditions such as poverty or a lack of job opportunities may make it difficult for individuals to afford the costs of migration or to take risks associated with moving to a new location. Similarly, social factors such as family ties or cultural identity may create strong attachments to one's place of origin and discourage individuals from leaving (Massey *et al.*, 1998).

Theories of immobility in the migration framework have emphasised the importance of social networks, institutions, and power structures in shaping individuals' decisions to stay or leave. For example, social network theory suggests that the availability and strength of social ties can influence individuals' migration decisions, as they may rely on their social networks for information, resources and support during the migration process (Mohamed & Abdul-Talib, 2020). Institutional theory, on the other hand, focusses on the role of formal and informal institutions in shaping migration patterns. For example, migration policies and regulations can create barriers to mobility, while cultural and social norms can influence individuals' perceptions of migration and their willingness to leave (Boyd, 1989). Power theory emphasises the role of power imbalances and inequalities in shaping migration patterns, particularly in the context of forced immobility. For example, political conflicts or environmental disasters can create situations where individuals are forced to stay in their current location due to lack of resources, access to information, or legal protection (Schiller & Çağlar, 2011).

Overall, theories of immobility in the migration framework highlight the complex and multidimensional nature of migration and the importance of considering a range of factors, including economic, social, political, and cultural conditions, as well as power imbalances and institutional structures. Understanding the reasons why individuals choose to stay in their current location can help policymakers and researchers develop more effective policies and interventions to address the needs of both mobile and immobile populations.

### **2.8.2.3 Acquiescent immobility**

Acquiescent immobility is a type of immobility in the migration framework that refers to a situation where individuals may have the desire or intention to migrate but are unable or unwilling to do so due to a lack of resources, access to information, or legal barriers (Tiltnes, 2018). It is often characterised by a sense of resignation or acceptance of one's current situation and a lack of agency in the decision to stay.

Theories of acquiescent immobility in the migration framework have highlighted the role of structural and institutional barriers in shaping individuals' migration decisions. For example, structural inequality theory suggests that individuals' mobility is influenced by the unequal distribution of resources and opportunities in society (Portes & Böröcz, 1989). In the case of acquiescent immobility, individuals may be trapped in a cycle of poverty and limited access to education or job opportunities, which makes it difficult for them to gather the necessary resources

to migrate. Institutional theory also emphasises the role of formal and informal institutions in shaping individuals' migration decisions. For example, migration policies and regulations can create barriers to mobility, while cultural and social norms can influence individuals' perceptions of migration and their willingness to leave (Boyd, 1989).

Power theory, as previously mentioned, highlights the role of power imbalances and inequalities in shaping migration patterns, including acquiescent immobility. Power imbalances can occur at the individual, community or national levels, where some groups may have more access to resources and opportunities than others, making it more difficult for certain groups to migrate (Glick Schiller & Çağlar, 2011).

Overall, Ortiga and Macabasag (2021) stated that theories of acquiescent immobility in the migration framework emphasise the importance of considering the structural and institutional barriers that prevent individuals from migrating, as well as the power imbalances that shape migration patterns. Understanding the reasons behind acquiescent immobility can help policymakers and researchers develop more effective policies and interventions to address the needs of those who are unable or unwilling to migrate (Carling & Collins, 2018).

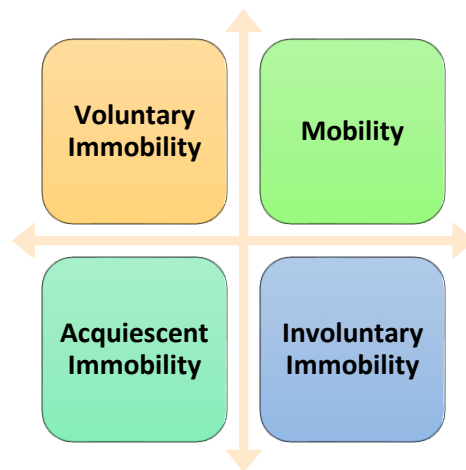
#### **2.8.2.4 Involuntary immobility**

Involuntary immobility refers to a situation where individuals are unable to migrate or move from their current location due to external factors beyond their control. This can be due to various reasons such as war, conflict, political instability, natural disasters, economic hardship and legal barriers, among others (Koser & Pinkerton, 2019).

Involuntary immobility can have negative consequences on individuals and their families, including limited access to education, employment opportunities, and basic services such as healthcare. In addition, involuntary immobility can also lead to social and cultural dislocation, loss of identity, and a sense of powerlessness (Black *et al.*, 2011). Theories of involuntary immobility have highlighted the role of power imbalances and inequalities in shaping individuals' mobility decisions. For example, people from marginalised communities may be more likely to experience involuntary immobility due to structural barriers such as discriminatory policies, lack of access to resources and limited opportunities (Glick Schiller & Çağlar, 2011).

Environmental factors, such as climate change and natural disasters, are also increasingly contributing to involuntary immobility. As global temperatures rise and natural disasters become more frequent and intense, people are increasingly forced to leave their homes due to environmental degradation, loss of land and resources, and other climate-related factors (Black *et al.*, 2011). Involuntary immobility is a complex issue that requires a multifaceted response. Addressing the root causes of involuntary immobility requires addressing issues such as conflict, political instability, economic inequality, environmental degradation and other structural barriers. In addition, policies and interventions that provide support and resources to those who are unable to migrate, such as humanitarian aid, can help mitigate the negative consequences of involuntary immobility (Koser & Pinkerton, 2019).

Migration framework is illustrated in Figure 2-2 and was fully discussed in Section 2.8.2 to give a better understanding of the role that migration plays in the migration framework process and the relationship it has to graduates' perceptions on migration.



**Figure 2-2: Migration framework of graduates**

Source: Compiled by author

## 2.9 SYNOPSIS

The results of a comprehensive review of studies on labour immobility have shown a number of important facets of this intricate problem. In the modern workforce, labour immobility is a serious problem affecting people and economies. This conclusion highlights various theoretical vantage points: the distinction between labour mobility and immobility; barriers to labour immobility; push and pull factors; and a comprehensive framework that incorporates all of these components. It

will also summarise the key findings and insights from the review. It is important to recognise at the outset that labour immobility has several facets and is influenced by a range of theoretical stances.

According to classical economics, labour should be completely mobile to enable effective resource allocation. The reality, however, is far from this ideal because labour immobility is a result of a number of social, geographic and institutional variables. The scoping review emphasises the significance of considering these many theoretical perspectives in order to gain a thorough understanding of labour immobility – and graduate labour immobility in particular – and the antecedents linked to this phenomenon.

In addition, the study found that the contrast between work that is mobile and work that is immobile is one of the most important ones stated in the review. While immobility denotes the barriers that prevent movement, mobility suggests the ease with which people may move between occupations, industries or locations. The study emphasises that immobility is a complex interaction of circumstances that limit labour's capacity to move, rather than just being the lack of mobility. It also identified barriers to labour immobility as a prominent issue. These obstacles include structural ones like regulatory restrictions, occupational licensing and educational gaps. Personal factors like cultural bonds and family responsibilities can also limit labour mobility.

In order to encourage a more flexible labour market, governments and businesses must identify and remove these obstacles. Additionally, the review examined the push and pull variables that affect labour immobility. Push factors are situations such as unemployment or job unhappiness, that compel people to quit their existing jobs. Pull factors, on the other hand, entice employees to pursue new possibilities because they provide greater pay or living standards. It is crucial to recognise and comprehend these elements when developing effective labour mobility strategies.

The review also suggested a paradigm that incorporates all of these different labour immobility factors. This extensive framework highlights the necessity for a comprehensive strategy to overcome labour immobility while acknowledging the complexity of the problem. This framework offers a structured framework for policymakers, academics and practitioners to better understand and manage labour immobility by considering the interaction of theoretical viewpoints: mobility vs immobility; impediments; and push-pull forces. Lastly, the study found that in the context of the migration framework, theories of acquiescent immobility highlight the significance of considering both the institutional and structural constraints that prohibit people from migrating and the power

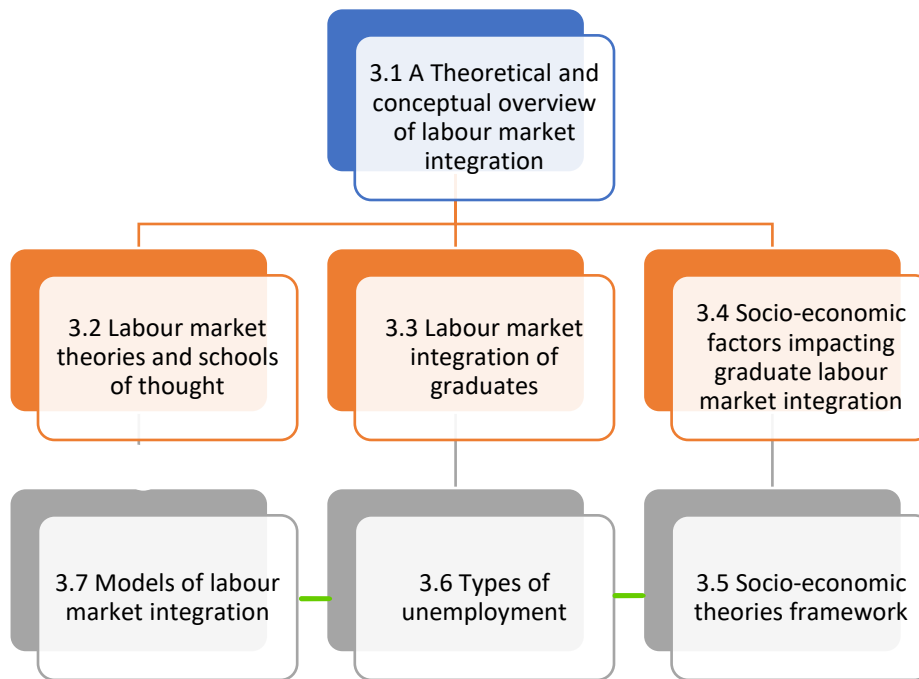
disparities that determine movement trends. Researchers and policymakers can create more efficient programmes and interventions to meet the needs of people who are unable or unwilling to move, by better understanding the causes of acquiescent immobility.

In conclusion, the study on labour immobility, demonstrates the complex character of this situation and the demand for a multifaceted solution. Instead of being a universal idea, labour immobility is a complicated interaction of elements impacted by various theoretical vantage points, obstacles, and push-pull dynamics. To successfully combat labour immobility and advance a more flexible and effective labour market, it is crucial to acknowledge the variety of these components and make use of a complete framework.

## CHAPTER 3: THEORETICAL AND CONCEPTUAL OVERVIEW OF LABOUR MARKET INTEGRATION

*“Like product markets, labour markets can also fail. The main types of labour market failure are the existence of skills gaps, poaching, labour immobility and inequality.” – EconomicsOnline*

2020



**Figure 3-1: Framework chapter three**

Source: Compilation by author

### 3.1 INTRODUCTION

Regional labour market integration is a multidimensional economic phenomenon characterised by the convergence of labour markets in neighbouring geographic regions (Seilane, 2023). This process includes the unrestricted movement of labour, skills, and employment opportunities across borders, which eventually contributes to economic growth and development. According to research conducted by Thies (2022) and Van Rooij *et al.* (2018), good regional labour market integration can result in several significant benefits such as first-year university students' academic success through academic adjustment and being able to transition from school to university and eventually employment opportunities within the labour market. Furthermore, accessibility to education increases the likelihood of gaining employment and of improving the

quality of that employment, as well as the job's productivity and wages (Turmo-Garuz *et al.*, 2019). Smith and Johnson (2020), for example, also discovered that integrated labour markets can result in a more effective allocation of labour resources, lowering unemployment rates and increasing total worker productivity.

This chapter is aimed at analysing the theoretical and conceptual overview of labour market integration with a focus on graduate labour market integration as well as the socio-economic factors which impact labour market integration and finding sound policies to support this framework. Firstly, the chapter discusses the theoretical and conceptual overview of labour market integration in section 2.1. Secondly, Section 3.2 consists of the labour market theories and schools of thought and, 3.3 labour market integration of graduates. This is followed by Section 3.4 which discusses the socio-economic factors impacting graduate labour market integration and 3.5 covering the socio-economic theories framework. Thirdly, Section 3.6 analyses the different types of unemployment which give rise to the high levels of graduate unemployment rates. Lastly, Section 3.7 discusses the different models of labour market integration which provides more insight into the significance of labour market integration structures and how these are helpful tools for developing the economy.

### **3.2 A THEORETICAL AND CONCEPTUAL OVERVIEW OF LABOUR MARKET INTEGRATION**

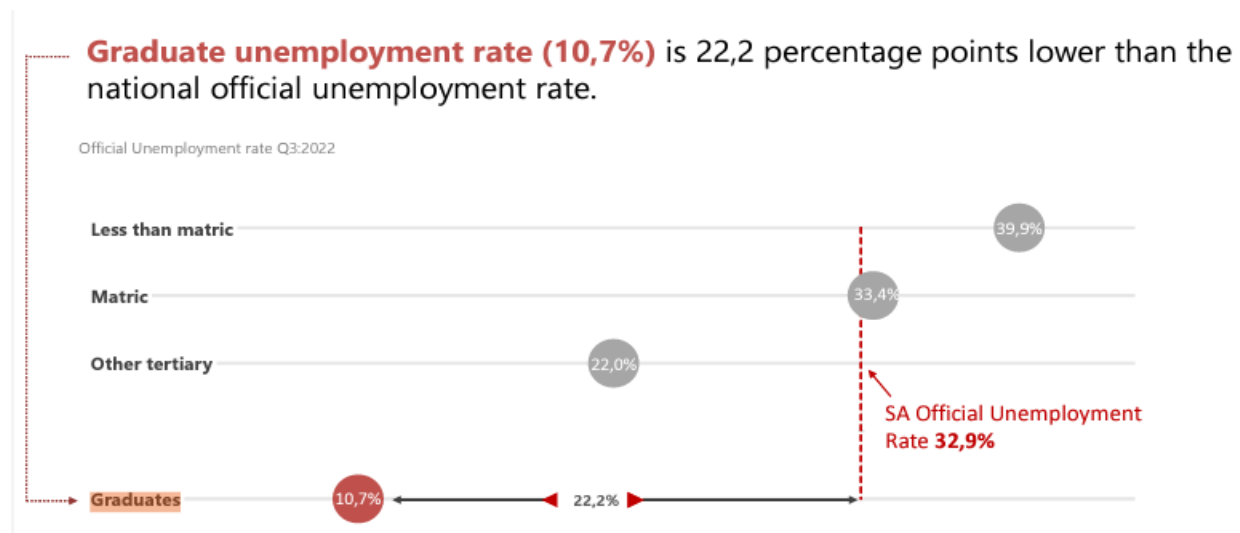
Numerous notable studies published since 2000 have raised concerns that graduate unemployment may quickly emerge as a significant problem in the nation despite the historically limited attention given to graduate labour market outcomes and their potential implications in the context of South Africa's wider labour market challenges (Van Broekhuizen, 2016). During Covid-19 the (QLFS) write out first found that for the second quarter of 2021 there was a decline of roughly 54 000 in the number of employed individuals. In the first quarter of 2021, the overall number of jobless persons increased by more than 550 000, totalling 7,8 million. However, now post-Covid-19, recent statistics as indicated by the QLFS: Q3 (2023), highlighted that the graduate unemployment rate stands at (10,7%) which is 22,2 percentage points lower than the national official unemployment rate in South Africa. This is still an alarming figure and is a contributing factor to the slow growth in the economy. However, the figures unambiguously show that South Africa does indeed have significant structural economic challenges which are further discussed in Section 3.3. Stats SA (2023) estimates that South Africa presently has the highest unemployment rate since the start of the labour force survey in 2008, with an official

unemployment rate of 32.9%. The high unemployment rates are the result of a number of causes, including sluggish economic growth and significant inequality. The Republic of South Africa (2023) lists a few core factors that contribute to the high rates of unemployment experienced in the country. These can be closely related to factors which include inadequate training and education; the effects of apartheid; a mismatch between labour demand and supply; the function of trade unions; and a general lack of enthusiasm for entrepreneurship.



**Figure 3-2: Labour market integration of graduates**

Source: Compilation by author (2023)



**Figure 3-3: Graduate unemployment rate in South Africa 2023**

Source: StatsSA (2023).

The objective of this chapter is to focus on the labour market integration outcomes and the role of social policy and its impact on economic growth and sustainability. Furthermore, this chapter also focusses on wage developments, wage inequalities and the evaluation of other demographical elements and their role in labour market integration.

Firstly, a labour market is defined as the total demand and supply for labour that, when combined, allows for the placement of the economically active population among business pursuits in comparison to jobs segmented by location, industries/sectors, demographics and professional qualifications (Kotlia, 1998:53). Families represent the labour supply, while organisations and businesses represent the labour demand. The wage is the cost of labour, which provides money to people, but is seen as a cost by businesses. The uncontrolled interplay of supply and demand in a free-market economy affects wages (Lodefalk *et al.*, 2022). In a mixed economy, both governments and labour unions have a big impact on how much employees earn.

To understand labour market integration, various aspects, must be analysed. This is of importance because studies previously conducted by Broekhuizen (2016) indicated a more concerning fact which is that the unemployment rates have increased the most for people with degrees and post-graduate qualifications. The unemployment rates for White and Black graduates have risen by 14.1% and 28.0% respectively over the course of seven years. Therefore, according to Müller (2022), labour market integration refers to the ability of workers to move freely across borders and access employment opportunities in different regions and industries. This is a critical issue with significant global and national impacts, as it can help to promote economic growth, reduce regional disparities, and improve social mobility (Sultana, 2022). At the global level, labour market integration can help to address labour shortages in certain regions and industries, while also providing opportunities for workers to access higher-paying jobs and better working conditions (OECD, 2022).

Labour market integration can lead to increased economic growth and development, as well as greater social cohesion and stability. At the national level, labour market integration can help to reduce regional disparities and promote economic development in less prosperous areas (ILO, 2020). This can lead to a more balanced and equitable distribution of wealth and economic power, as well as greater opportunities for social mobility. However, in the studies on social mobility, researchers like Goldthorpe (1987), Payne (1987) and Marshall *et al.* (1988) found certain information that suggested that social class inequalities tend to continue regardless of the

economic situation. So, even though there are more job opportunities in different areas, this does not mean that everyone will have the same chance to get professional jobs like in the past (Duta & Iannelli, 2018).

In South Africa, labour market integration is a particularly important issue, given the country's history of social and economic inequality (Bhorat & Kanbur, 2017). The legacy of apartheid has created a situation in which the majority of the population lacks the education and training necessary to access high-skill jobs, while a small minority holds a disproportionate share of the country's wealth and economic power. Labour market integration can help to address this challenge by providing opportunities for workers such as graduates to access job opportunities in different regions and industries, thereby reducing regional disparities and promoting social and economic mobility (Schueller, 2023).

Efforts to promote labour market integration must focus on creating policies and incentives that facilitate the movement of workers such as graduates across borders, while also ensuring that workers are protected from exploitation and discrimination (ILO, 2021). This requires collaboration and coordination among governments, employers and workers' organisations at the national and international levels. Therefore, labour market integration is a critical issue with significant global, national and regional impacts that can influence graduates' integration into the labour market. Efforts to promote labour market integration must focus on creating policies and incentives that facilitate the movement of workers such as graduates, while also ensuring that workers are protected and treated fairly in the workplace.

Several theories throw light on the relationship between labour market integration and social and economic factors that consist of factors such as salary, education, employment, communal safety and social care. In South Africa, the reasons for the increased interest in the labour market prospects of young people, particularly among graduates are extensive and as a result, form part of the current debates on the post-apartheid labour market and the transformation of the higher education sector (Rogan *et al.*, 2015). South Africa has come a long way since the end of institutionalised racial discrimination in 1994. However, challenges such as poverty and poor labour market situations still prevail (Beukes *et al.*, 2016). Currently, an estimated 8.9 million South Africans do not have jobs despite wanting to work (Stats SA, 2023). According to Statista (2023), in the second quarter of 2023 most unemployed people in South Africa did not have a matric (Grade 12) education. Around 40 percent of unemployed people completed high school,

while only about 2.4 percent were graduates. Graduates in their youth are seemingly the most affected among all age groups as they constitute a high proportion of individuals experiencing negative employment outcomes.

Contrary to the youth in general, unemployment among graduates remains low in comparison to those with lower educational qualifications (Pauw *et al.*, 2008; Van Der Berg & Van Broekhuizen, 2012; Altbeker & Storme, 2013; Van Broekhuizen, 2015). This is explained by the fact that education often shapes opportunities (Filmer *et al.*, 2014:10); those with no education have a high chance of not only being unemployed but also being in vulnerable employment. University graduates are least likely to be unemployed (Van Broekhuizen & Van Der Berg, 2013; Van Broekhuizen, 2016). In fact, a report by Stats SA on the social profile of the youth between 2009 and 2014 highlights that the share of unemployed graduates remained the same, at one percent.

These findings also mirror those of Van Broekhuizen and Van Der Berg (2013) who investigated the status of graduate unemployment in South Africa and found that the broad unemployment rate among graduates has been below six percent, despite South Africa's high broad unemployment rate (more than 37percent) (Stats SA, 2017). These findings are also reiterated by Van Broekhuizen (2016) and Van De Rheede (2012) who found that unemployment among university graduates is very low in relation to overall unemployment rates. Labour force participation seems to increase with the level of education.

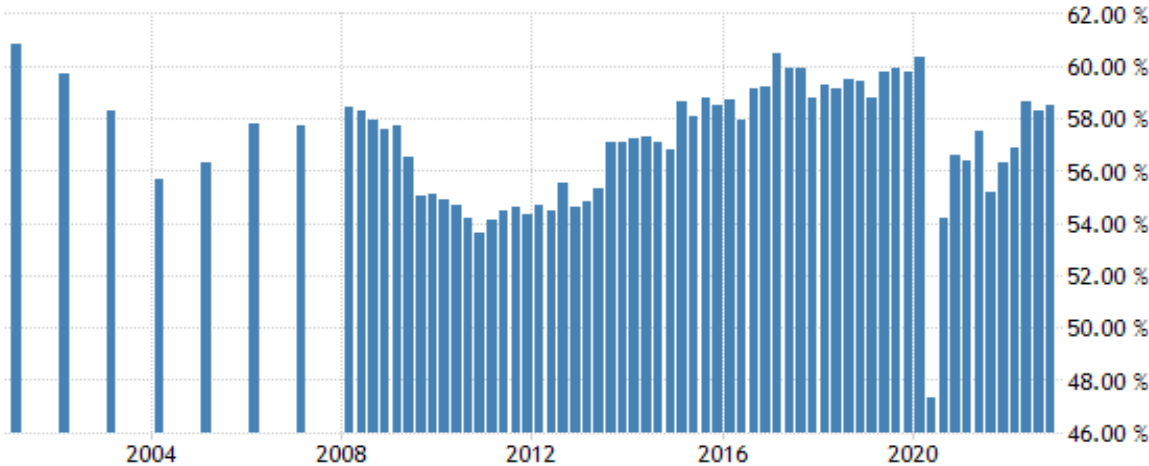
For instance, in the fourth quarter of 2016, graduates had a higher participation in the labour market (88.4%) when compared with those with matric (71.5%) and those with less than a matric (48.5%) (Stats SA, 2017). However, some studies (e.g., Moleke 2010; Altbeker & Storme 2013; Spaul 2013) contend that not all graduates enjoy this added advantage in the labour market because of particular circumstances that exist in the fact that graduates of certain courses are more likely to experience negative employment outcomes such as lengthier job searches, or even unemployment.

While labour market analysis and all its aspects have undergone vast transformations over the years; there are arguments that employment and unemployment measures have not been adequate in understanding the growing complexities of labour markets (Beukes *et al.*, 2016; Lacmanovic *et al.*, 2016; Wilkins & Wooden, 2011). This view corroborates Pisica *et al.* (2015) who argue that unemployment is not a complete measure of unused labour capacity. Factors such as discouragement which arises from the expanded unemployment and underemployment

continue to hinder the effective functioning of labour markets. The expanded unemployment definition explains an unemployed person as one who does not have a job even though they have not been actively searching for one in the previous week; while by the strict unemployment definition an unemployed person is one with no job but who has been actively looking for employment in the previous week (Kingdon & Knight, 2001; Stats SA, 2004).

As seen in Figure 3-3, in the late 20th Century and early 2000s, South Africa underwent significant political and economic changes with the end of apartheid and the establishment of a democratic government. This period saw an increase in labour force participation as more people were integrated into the formal economy. Between 2008 and 2012 the economy faced many challenges stemming from the financial crisis of 2008 (Trading Economics, 2023). This had a severe impact on labour markets specifically, with a noticeable increase on unemployment rates during this period.

Between 2012 and 2021, South Africa’s labour force grappled with persistent high rates of unemployment, especially among the youth (ILO, 2021). After the pandemic, more structural issues surfaced including a mismatch between skills and job opportunities, and this contributed to the existing labour market challenges. Therefore, as indicated, from 2021 onwards a combination of economic reforms, education and skills development, and job creation efforts are likely to be key factors influencing future trends.



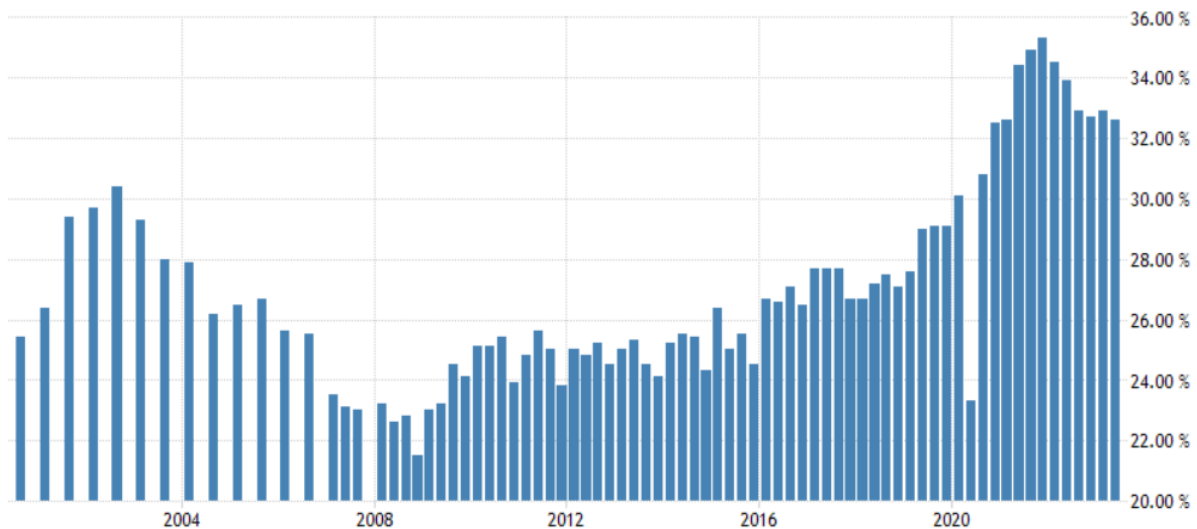
**Figure 3-4: Labour force participation trends in South Africa 1998-2023**

Source: Trading Economics, (2023).

Likewise, Figure 3-3 the ILO (2023) indicates that unemployment figures have over the years understated the magnitude of labour market challenges confronting young people since a substantial number of the youth are working; however, they do not acquire salaries sufficient enough to lift themselves out of poverty. As Quak and van de Vijssel (2014:1) observe, “they may not yet be in a situation of what is known as ‘precarious work’, but they face a near future of more and more insecure, unprotected, and low-paid work. Such a situation is referred to as underemployment, and according to Beukes *et al.* (2016:2) and Maynard and Feldman (2011), there has been a lack of thought given to the degree to which jobs use the abilities and capabilities of individuals as well as occupying their time adequately.

According to Rahman *et al.* (2021), unemployment among South African graduates is far worse than it was a few years ago. However, according to a report by BusinessTech in 2023, and as illustrated in Figure 3-3, the Q1 unemployment statistics revealed an increase of the official unemployment rate from 32.7% (in Q4, 2022) to 32.9%: 48.3% of the unemployed population lacked matric while 40.7% had completed matric; alarmingly merely 2.7% were graduates and just a few (i.e., 7.5%) possessed alternative tertiary education qualifications.

Therefore, the report furthermore indicated that although the graduate unemployment rate of 10.6% is significantly lower than the national unemployment rate, which is higher by a margin of 22.3 percentage points, there has been an alarming surge in unemployment among graduates over last few years. Despite the fact that total unemployment numbers have increased from 25% in Q1 of 2013 to 32.9% in Q1 of 2023, it is concerning that young and skilled South Africans are not able to find employment (ILO, 2023).



**Figure 3-5: South Africa's unemployment rate**

Source: Trading Economics, (2023).

Quite a few theories have been connected to underemployment; for example, the theory of career mobility, the human capital theory, relative deprivation theory, and person job-fit theory among others (Mncayi, 2021). These theories have endeavoured to elucidate the reasons behind underemployment. For instance, as indicated by the person-job fit theory, underemployment emerges as a result of the gap between worker capabilities such as skills and knowledge and the demands of their jobs (McKee-Ryan & Harvey, 2011). According to Johnson and Johnson (2000) and Lee (2005), being unhappy with their jobs increases the likelihood of workers leaving. On the other hand, relative deprivation theory suggests that underemployment occurs when employees compare themselves with ideal work conditions or peers who have similar skills, education, experiences and qualifications, as asserted by Erdogan and Bauer's citation of Crosby (2011), Feldman *et al.* (2002) and Luksyte and Spitzmueller (2011).

Last year, PwC (PricewaterhouseCoopers) stated that a major cause of graduate unemployment in South Africa was the mismatch between companies' requirements and graduates' skills. The participation of South Africa's labour force has been affected by demographic factors, such as population growth and age distribution. This has caused difficulties for younger individuals in terms of obtaining employment opportunities. Therefore, according to Hornstein *et al.* (2005), high levels of unemployment, inequality, labour productivity, taxes, and technological advancements

or a change in economic trends are the most important factors influencing economic growth because they indicate an economy's capacity to create new job opportunities in addition to the lack of skills needed to perform the existing occupations. As a result, it is also crucial to consider South Africa's overall economic growth trends as well as the Sector Education and Training Authority (SETA) services sector. According to PwC (2023), universities are taking measures like revising their curricula in order to enhance graduates' employability and readiness for job opportunities. However, despite these efforts, the youth of South Africa seem inclined towards pursuing degrees that hold little demand. SETA can report that skills currently in high demand include finance, sales, IT, management and manufacturing. These fields all require some level of tertiary education.

### **3.3 LABOUR MARKET THEORIES AND SCHOOLS OF THOUGHT**

The labour market is a crucial part of any economy, as it determines the wages and employment opportunities available to workers. Over the years, several theories and schools of thought have emerged to explain the workings of labour markets and how they affect the economy. According to classical economists such as Amuedo-Dorantes and Puttitanun (2011), labour markets are efficient and flexible, with wages adjusting to maintain a balance between the supply and demand for labour (Castles *et al.*, 2013). This theory is based on the concept of the "invisible hand," whereby self-interested individuals in a market economy are led by an unseen force to promote the general welfare of society. Neoclassical economics builds on classical economics but adds a more nuanced understanding of individual decision-making. According to neoclassical economists, workers are rational agents who make decisions based on their preferences and the available information. This theory emphasises the importance of education and training in increasing productivity and wages. Workers who invest in education and training can increase their productivity and earn higher wages, while firms that invest in capital equipment can increase their efficiency and reduce costs (Urbański, 2022).

According to Rasool *et al.* (2012:11), the factors that "push" an individual or household from their place of origin include poverty, unemployment and political issues, while other factors that "pull" these same people include better income and living standards, higher rates of employment and political freedom. When specifically looking at the working environment of South Africans, more specific "push" factors include racism, crime, abuse and political unrest within companies. "Pull" factors in terms of the working environment an individual desires include better training possibilities, higher salaries, and a peaceful working environment (Bloch *et al.*, 2013).

**Table 3-1: Examples of the impact of push and pull factors on graduates**

<b>Area</b>	<b>Push factors</b>	<b>Pull factors</b>
<b>Economic</b>	Low wages Lack of basic health facilities Poverty High fertility rates Unemployment	Prospects for higher wages Improved living standards Personal development Job opportunities Good welfare standards Labour demands
<b>Social</b>	Discrimination Poor medical care Social insecurity Inadequate education systems Population growth	Family reunification Ethnic homeland Freedom from discrimination Better medical care Welfare state benefits
<b>Political</b>	Conflicts Corruption Poor governance Human rights abuses Bad governance Terrorism	Safety and security Political freedom Democracy Political stability Human civil rights

Source: Adapted from Urbański (2022)

**Table 3-2: Push and pull factors in the global economy**

<b>Push factors</b>	<b>Pull factors</b>
Economic instability in home country	Economic opportunities in new country
Lack of economic opportunities	Better wages and working conditions
Political instability or conflict	Stable political and social environment
Discrimination or persecution	Access to education and training
Language barriers	Opportunities for upward mobility

Social networks in home country	Strong labour market in new country
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Source: Adapted from Chiswick and Miller (2014); Hunt (2011).

Both push and pull factors can have a significant impact on migration patterns. For example, economic push factors may be particularly relevant for low-skilled workers who seek employment opportunities in other countries, while political push factors may be more relevant for those seeking asylum or refugee status (Castles *et al.*, 2013). Similarly, economic pull factors may be particularly relevant for skilled workers who seek better job opportunities, while social and cultural pull factors may be more relevant for those seeking a better quality of life (Krieger & Smith, 2016).

According to Van Impe (2000), in order to address push and pull factors associated with migration requires a multifaceted approach. This may include investing in economic development and job creation in the home country, improving access to education and healthcare, and promoting good governance and human rights (Bloch *et al.*, 2013). In addition, policies and programmes that promote social and economic integration in the destination country may be necessary, such as language and skills training, targeted recruitment and hiring initiatives, and support for community building and social networks (Castles *et al.*, 2013). These factors are crucial for developing effective policies and programmes that address the needs of both migrants and their host communities.

### **3.3.1 The neoclassical theory of the demand for labour**

The neoclassical theory of the demand for labour is based on the principle of profit maximisation for firms. It assumes that firms aim to maximise profits by producing goods or services at the lowest possible cost, including labour costs (Hunt, 2011). The theory suggests that the demand for labour is derived from the demand for the goods and services that the labour produces, and that the demand for labour is inversely related to its wage rate. According to the neoclassical theory, firms will hire labour until the marginal revenue product (MRP) of labour is equal to its marginal cost (MC). The MRP is the additional revenue generated by hiring an additional unit of labour, while the MC is the additional cost of hiring that unit of labour. At the point where  $MRP=MC$ , the firm is producing at the most efficient level, and will not hire any more labour (Amuedo-Dorantes & Puttitanun, 2011).

The demand for labour can be affected by several factors, including changes in the price of the goods or services produced, changes in the productivity of labour, and changes in the price of other inputs such as capital. For example, if the price of the goods or services produced increases, the MRP of labour will increase, leading to an increase in the demand for labour. The neoclassical theory of the demand for labour has been criticised for its assumption of perfect competition and the ability of firms to adjust their production levels quickly in response to changes in demand. Labour markets are often characterised by imperfect competition, with firms having some degree of market power, and wages may not adjust quickly to changes in demand (Chiswick & Miller, 2014; Hunt, 2011).

However, despite these criticisms, the neoclassical theory of the demand for labour remains an important theoretical framework for understanding the behaviour of firms in labour markets. Neoclassical economic theory holds that product markets decide on exchange rates and unit costs for goods. Neoclassical economists also contend that wage rates and employment levels are determined by labour markets. In essence, the idea is a tale of supply and demand, like the one explored in relation to goods markets.

### **3.3.2 The labour in macroeconomic theory**

Macroeconomic theory states that the fact that earnings growth is slower than productivity growth shows that the supply of labour has surpassed the demand. As workers compete for a limited number of jobs and employers have their pick of the labour force, wages are under pressure to decline in those circumstances (Aganbegyan, 2022). In contrast, if demand exceeds supply, wages will increase because employees will have greater negotiating leverage and will be more likely to be able to transfer to a job that pays more while employers would have to fight for the limited pool of available workers (Ogujiuba & Cornelissen, 2020). The labour market plays a crucial role in macroeconomic theory as it is the key determinant of the level of employment, wages and prices in the economy. Macroeconomic theory explores the interactions between labour market dynamics and other macroeconomic variables such as inflation, economic growth, and monetary policy (Stockhammer, 2022).

According to Petersen (2019), the classical view of the labour market assumes that wages and prices are flexible and will adjust in response to changes in supply and demand. According to this view, unemployment is a temporary phenomenon caused by friction in the labour market and will be eliminated by market forces in the long run. On the other hand, the Keynesian view of the

labour market emphasises the importance of aggregate demand in determining the level of employment and output. Keynesian theory argues that unemployment can persist in the long run due to insufficient demand for goods and services, leading to a situation of “involuntary” unemployment (Sim, 2021).

In recent years, the New Classical and New Keynesian models of the labour market have emerged, which attempt to reconcile the insights of classical and Keynesian theories. These models incorporate features such as imperfect information, search and matching frictions, and nominal wage rigidity to explain labour market outcomes (Galvão de Almeida, 2021). One of the key challenges in macroeconomic theory is to describe the persistence of unemployment and the occurrence of business cycles (Bresser-Pereira, 2019). The labour market is a critical component of these models, as it determines the level of output and employment in the economy. Macroeconomic theory also examines the impact of various policy interventions, such as monetary and fiscal policy, on the labour market and the broader economy. In summary, the labour market is a central component of macroeconomic theory, and understanding its dynamics is crucial for understanding the economy's behaviour (Trautwein, 2020).

Therefore, in accordance with Olo *et al.* (2022), some factors can have an impact on labour supply and demand, which causes an increase in immigration to a country: for example, it can increase labour supply while potentially lowering wages, particularly for unskilled jobs. An aging population can reduce labour supply and consequently increase salaries. These elements, however, may not always have such obvious repercussions (Vlados, 2019). In a country with an aging population, demand for many goods and services would fall but need for healthcare will rise. Not every person who loses their job may change careers, especially if the positions in demand are highly trained and specialised, such as physicians and nurses. As a result, even if supply surpasses demand in the labour market, demand in some areas may exceed supply (Green & Henseke, 2021).

### **3.3.3 The labour market in microeconomic theory**

Zizka *et al.* (2021) indicated that the labour market is an important area of study in microeconomic theory, which focusses on the behaviour of individual agents, such as workers and firms, in the market. The microeconomic approach to the labour market emphasises the role of incentives and market forces in determining employment and wage outcomes (Håkansson & Bejakovic, 2020).

One of the key concepts in microeconomic theory is the labour supply curve, which represents the relationship between the quantity of labour supplied by workers and the wage rate. According to this theory, workers will choose to work more hours at higher wages, *ceteris paribus* phrase in economics meaning all other things being equal. This results in an upward-sloping labour supply curve (van Dijk & Edzes, 2016). On the other hand, the labour demand curve represents the relationship between the quantity of labour demanded by firms and the wage rate. According to Moseley (2015), the theory of marginal productivity emphasises that firms will hire additional workers if the marginal revenue product of labour exceeds the wage rate. This results in a downward-sloping labour demand curve.

The intersection of the labour supply and demand curves determines the equilibrium wage rate and level of employment in the market. Changes in either curve can lead to shifts in the equilibrium outcome (Moseley, 2015). Microeconomic theory also considers factors that may affect the labour supply and demand curves, such as technological changes, labour market institutions, and government policies. For example, minimum wage laws can shift the labour demand curve by increasing the cost of labour for firms, potentially reducing employment (Ellerman, 2016).

Therefore, labour market theories and schools of thought provide different perspectives on the factors influencing wages, employment, and outcomes. Classical economics emphasises the efficiency of market forces, while neoclassical economics adds a focus on individual decision-making. Keynesian economics emphasises the role of government intervention in stabilising the labour market, while institutional economics emphasises the role of social and political institutions. Marxist economics emphasises the role of class struggle in shaping labour markets. Each theory offers a unique perspective on labour markets, and policymakers must consider these theories when designing policies to promote full employment and wage growth (Frege *et al.*, 2011).

### **3.4 LABOUR MARKET INTEGRATION OF GRADUATES**

Labour market integration refers to the process by which individuals enter and participate in the labour market, and the extent to which they can secure stable and productive employment. Many factors influence labour market integration, including demographic characteristics, education and training, social networks and institutional factors. In this review, we will explore the literature on labour market integration and its fundamental determinants.

Over the past ten years, a significant area of research has been focussed on the shift from school to work. The main reason is that it is hard to find a job after graduating, and many graduates end up in unstable positions (Mihaela *et al.*, 2010). Similarly, the study conducted by Hrisanta *et al.* (2010) found that right now, economically speaking, it is becoming more difficult for graduates to transition from school to work smoothly. This process is now more divided and takes longer. Industry tends to place a lot of importance on personal abilities to communicate and negotiate to get into the labour force market (Furlong *et al.*, 2005). According to a study conducted in Europe by Păcurariu (2019), the relationship between universities and the job market is now stronger than it has ever been. The changing nature of society puts a lot of pressure on the education systems. This makes them think about what they do and how they can find better ways to share information and ideas so that they can meet the needs of the economy and society (OECD, 2000). Surely, this is a model many other countries could adopt in order to ensure that more graduates are employed after completing their courses.

Some key determinants of labour market integration are discussed in the following section.

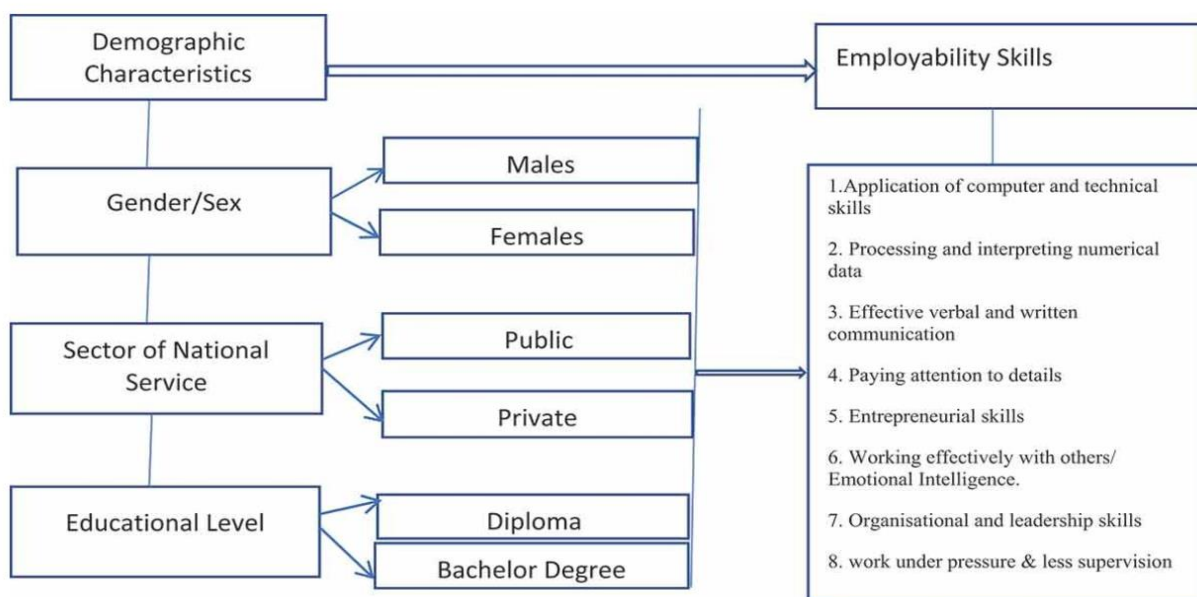
### **3.4.1 Demographic characteristics**

Demographic characteristics such as age, gender and ethnicity, can significantly impact labour market integration as framed and conceptualised in Figure 3-5. According to Jepsen and Montgomery (2014), young and older graduates are more likely to experience unemployment and labour market instability, as they may have difficulty finding and securing employment. This might be due to the lack of adequate housing and the high cost of purchasing a new home. The strain of relocating to a new region without the adequate finances to sustain the graduates' basic needs is too great. Similarly, women and ethnic minorities may experience discrimination and bias in the labour market, which can make it more difficult for them to secure stable and productive employment (Segbenya *et al.*, 2023).

The study discusses the relationship between demographic characteristics and labour market integration. Age is one demographic characteristic that can impact labour market integration (OECD, 2022). Young people may face challenges in accessing stable employment due to a lack of work experience. In contrast, older workers may face age discrimination because of difficulty in keeping up with new technologies and skills. However, age can also be positive factor in job opportunities since some industries prefer younger or older workers depending on the specific skills required (European Commission, 2016).

Gender is another demographic characteristic that can impact labour market integration. Women often face gender-based discrimination and may be subject to a gender pay gap resulting in lower pay and fewer opportunities for career advancement (OECD, 2021). Additionally, women are often overrepresented in certain industries, such as healthcare and education, which may have lower wages and fewer opportunities for advancement (Eurostat, 2021).

Race can also play a role in labour market integration. Minority groups may face discrimination and bias in hiring and promotion, resulting in lower employment rates and fewer opportunities for career advancement (European Commission, 2018). Immigrants may also face additional barriers to labour market integration, such as language barriers, difficulties in credential recognition, and discrimination (OECD, 2018). Education level is another important demographic characteristic that can impact labour market integration. Individuals with higher levels of education generally have better employment outcomes, such as higher wages and lower unemployment rates (OECD, 2021).



**Figure 3-6: Conceptual framework showing the effects of demographic characteristics of tertiary graduates on their perception of employability skills**

Source: Segbenya *et al.* (2023)

However, disparities in access to education can result in certain groups having lower levels of education and, therefore, lower employability. In addition to these demographic characteristics,

other factors such as disability status, family responsibilities, and geographic location can also impact labour market integration.

As displayed in Figure 3-6, each effect plays a pivotal role in the demographic characteristics of tertiary graduates and their perceptions of employability skills. What the market needs and what they can offer is of importance in order to develop labour market integration systems. There are various other effects the study had to analyse to gain a better understanding of framework. These include education and training, social networks, institutional factors, migration as well as self-employment which are discussed in more detail in the next section.

### **3.4.2 Education and training**

Education and training are important factors in labour market integration, as they can enhance individuals' skills and knowledge, and increase their competitiveness in the labour market. According to Oreopoulos (2011), individuals with higher levels of education are more likely to be employed and to earn higher wages. Similarly, training and apprenticeship programmes can provide individuals with the skills and experience necessary to succeed in the labour market, particularly in high-skilled occupations.

Blázquez Cuesta (2005) also asserts that education plays a vital role in labour market integration. Individuals with higher levels of education tend to have better employment outcomes, such as higher wages, lower unemployment rates, and more stable employment. Education provides individuals with the skills and knowledge necessary to perform a wide range of jobs and can increase their employability in a changing labour market (Tesfai & Saabneh, 2023). For example, as the labour market becomes more focussed on digital technologies, individuals with skills in technology-related fields will be more in demand. Education can also provide individuals with soft skills, such as communication and teamwork, that are increasingly valued by employers.

In the same vein, De Lange *et al.* (2014) found that training is another important factor in labour market integration. Van der Velden and Wolbers (2003) point out that training can provide individuals with the skills and knowledge necessary to perform a particular job or occupation. It can also help individuals update their skills in response to changes in the labour market. Zweimüller (2013), for example, observed that as new technologies are introduced, training can help individuals acquire the skills necessary to work with these technologies. Training can also help individuals overcome barriers to employment, such as a lack of work experience or skills

gaps. In addition to formal education and training, informal learning can also play a role in labour market integration. Informal learning can include on-the-job training, learning from colleagues, and self-directed learning. This type of learning can be invaluable for individuals who face barriers to accessing formal education and training, such as financial constraints or limited educational opportunities (Persson *et al.*, 2023).

Despite the importance of education and training for labour market integration, not all individuals have equal access to these opportunities. In countries such as Germany, Greece and Austria, there are still significant disparities in access to education and training based on factors such as socioeconomic status, race and gender (Dingeldey *et al.*, 2017). Addressing these disparities is an essential step towards ensuring that all individuals can participate fully in the labour market.

### **3.4.3 Social networks**

Social networks can play an important role in labour market integration, as they can provide individuals with access to job opportunities and information about the labour market. According to a study by Leal Filho *et al.* (2021), individuals with strong ties to their social networks, such as friends and family, are more likely to find job opportunities through these networks. Similarly, individuals who are members of social groups, such as professional associations and labour unions, may have access to job opportunities and other resources that can facilitate their labour market integration. Social networks are the relationships, connections and interactions between individuals or groups (Lin, 2019). Social networks play a vital role in many aspects of life, including social support, health, and employment. A study conducted by Maquera-Luque *et al.* (2021) found that accessibility to the labour market for graduates of the National University of Moquegua was hampered by a variety of socioeconomic and cultural reasons.

Social support is a key benefit of social networks. Individuals with strong social networks can access emotional, informational and practical support (Thoits, 2011). Social support can help individuals cope with stress and adversity, promote positive mental health outcomes and improve overall well-being. Social networks can also impact health outcomes. Social isolation and loneliness have been linked to adverse health outcomes such as depression, anxiety and cardiovascular disease (Cacioppo & Cacioppo, 2018). Conversely, social networks can promote healthy behaviours, provide access to healthcare resources and improve overall health outcomes (Berkman *et al.*, 2000).

In addition to social support and health outcomes, social networks can also impact employment outcomes. Networking, or building relationships with individuals in one's professional network, can lead to job opportunities, career advancement and access to information about job openings (Lin, 2019). Individuals with larger and more diverse social networks have been found to have better employment outcomes, such as higher wages and lower unemployment rates (Lin, 1999). However, social networks can also have negative effects. Social networks can perpetuate inequality by providing advantages to those with access to valuable social resources, such as information, financial capital and social connections (Lin & Wang, 2020). Social networks can also lead to social exclusion and discrimination based on factors such as race, gender and socioeconomic status, which is aligned with the demographics discussed in Section 3.3.1 (McPherson *et al.*, 2001).

#### **3.4.4 Institutional factors**

According to Kahanec and Zimmermann (2010), labour market policies, such as unemployment benefits and active labour market programmes, can help reduce unemployment and facilitate integration. Similarly, regulations that protect workers' rights and provide for fair labour practices can help to reduce discrimination and improve working conditions, which can facilitate labour market integration.

Institutional factors are the laws, policies, and regulations that shape the economic and social environment in which individuals and organisations operate (North, 1990). These factors can significantly impact economic development, market competition, and social outcomes. One important institutional factor is the legal system. The rule of law is crucial for economic growth and development, providing a predictable and stable environment for individuals and businesses to operate (Acemoglu & Johnson, 2005). A well-functioning legal system can promote market competition, protect property rights, and enforce contracts, which are all essential for economic development.

Another important institutional factor is the education system. Education plays a crucial role in shaping the skills and abilities of individuals, which in turn can impact their labour market outcomes (Heckman, 2006). A well-functioning education system can promote equality of opportunity and provide individuals with the skills and knowledge needed to succeed in the labour market. Institutional factors can also impact social outcomes. For example, social welfare policies can provide a safety net for individuals and families in need, promoting more significant social

equity (Esping-Andersen, 1990). Tax policies can also impact social outcomes by redistributing income and wealth, reducing inequality, and promoting social welfare.

However, institutional factors can also have negative effects. Corruption, for example, can undermine economic development by reducing trust in institutions and distorting market competition (Mauro, 1995). Poorly designed or implemented policies can also have unintended consequences, such as reducing incentives to work or invest.

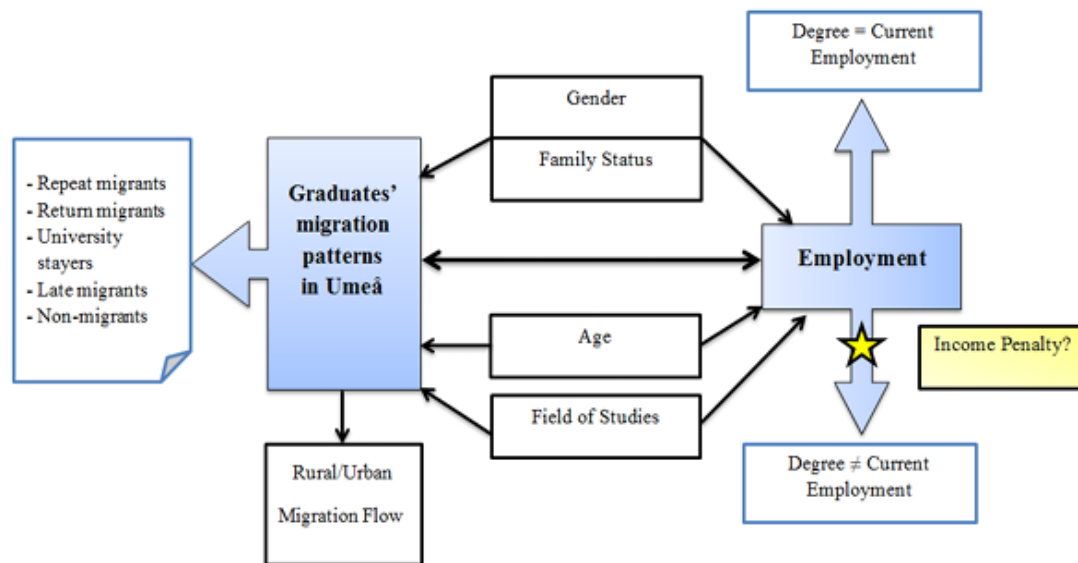
### **3.4.5 Graduate migration and employability**

Migration is another important factor in labour market integration, as it can affect individuals' ability to find and secure employment. Migration refers to the movement of people from one place to another, either within a country or across international borders. It is a complex phenomenon influenced by various economic, social, and political factors. Constant and Zimmermann (2011) indicate that migrant workers may face a range of challenges in the labour market, including language barriers, discrimination and difficulties in obtaining recognition of their qualifications and work experience. Similarly, employers may be reluctant to hire migrant workers, due to concerns about language proficiency and cultural differences (Sorokolit, 2018).

Economic factors are one of the primary drivers of migration and the employability of graduates. Individuals may move to seek better job opportunities or improve their living standards (Borjas, 1989). These migration patterns can also impact the economy of both the sending and receiving countries. In the sending country, migration can lead to a brain drain, where skilled workers leave the country for better opportunities. In the receiving country, migration can fill labour shortages and provide a source of innovation and entrepreneurship (Peri, 2012).

Social factors can also impact migration and the employability of graduates through family reunification, which is a common reason for migration, with individuals moving to join family members who have already migrated (Massey *et al.*, 1993). Migration can also impact social integration, as migrants may face challenges adapting to a new culture or language (Berry, 1997). Political factors can also influence migration. Conflict, persecution, and human rights abuses can force individuals to flee their homes and seek refuge in other countries (United Nations High Commissioner for Refugees (UNHCR), 2021). Governments may also implement immigration policies to regulate the flow of migrants into their countries. (Furthermore, according to Nordin *et al.* (2010), having an education-occupation mismatch might result in an income penalty. There

have been no previous studies that validate this idea for Umeå university graduates. Gender, family situation, age, field of study, and patterns of migration might all influence an individual's employment match/mismatch (Sorokolit, 2018).



**Figure 3-7: Theoretical framework on graduate labour (im)mobility**

Source: Sorokolit, (2018)

While migration can have positive effects, it can also have negative consequences. Migrants may face discrimination, exploitation, and poor working conditions (ILO, 2018). Immigration policies can also be controversial, with some arguing that they should be more restrictive to protect domestic workers and others arguing that they should be more open to provide opportunities for migrants and address labour shortages (Teng *et al*, 2019).

### 3.4.6 Self-employment and graduate perceptions

Self-employment was researched in the 90s as a valuable contribution to the body of literature on migration and employability studies. A research study conducted by Dolton and Makepeace (1990) highlighted the perceptions of graduates who decided which sector of the labour market to conform to, and by doing so choosing to work in the "employed" or "self-employed" sectors. This allowed graduates to make their selection based on which offered the greatest benefits. Self-employment offers an alternative to salaried employment and is a significant source of new jobs.

In the European Union (EU), approximately 32.6 million people between the ages of 15 and 74 worked for themselves (Salas-Velasco, 2023). They represented 14 percent of the total labour force in the EU. Furthermore, individual characteristics, including each of their social backgrounds and education paved the way for them, in addition to the earnings from each sector which carried its own systematic impact on the utility. Therefore, self-employment can also play a role in labour market integration, particularly for individuals who may face barriers to traditional employment.

According to Guzman and Kacperczyk (2015), self-employment can provide individuals with greater autonomy and flexibility in their work, as well as the opportunity to develop their skills and knowledge. However, self-employment may also be associated with lower wages and less job security, particularly for individuals unable to access financing or other resources to support their business. A study by Babyetsiza (2019) conducted in Uganda found that the development of gainful self-employment skills amongst tertiary education graduates can be a helpful tool in addressing the problem of high levels of unemployment amongst graduates.

According to Babyetsiza (2019) (as cited in Startienė, Remeikienė, & Dumčiuvienė 2010), self-employment refers to individuals who work for themselves and do not have an employer-employee relationship. It is an instance whereby individuals choose to work for themselves rather than be hired workers. Self-employment can offer several benefits, including increased flexibility, autonomy and the potential for higher earnings (Gallie *et al.*, 2013). Self-employed individuals may have more control over their work hours and may have the ability to choose the types of projects they work on. They may also have the potential to earn more than they would in a traditional employment relationship, although this is not always the case (Dunn & Holtz-Eakin, 2000).

Self-employment can, however, also have some drawbacks, such as financial insecurity and a lack of access to benefits and protections that are typically provided to traditional employees (Kalleberg, 2000). Self-employed individuals may have irregular income streams and may not have access to health insurance, retirement plans or other benefits often provided to traditional employees. Self-employment can also have implications for the broader economy. Self-employment can create jobs and stimulate economic growth, as self-employed individuals may hire employees or engage in other economic activities (Gallie *et al.*, 2013).

Self-employment can also lead to labour market polarisation, where skilled self-employed individuals earn high wages, while low-skilled self-employed individuals earn low wages (Autor *et*

*al.*, 2017). Self-employment can also have implications for social inequality. Self-employment may provide opportunities for marginalised individuals, such as immigrants or individuals with disabilities, who may face barriers to traditional employment (Henderson *et al.*, 2015). However, self-employment may also be a precarious form of work where individuals are forced into self-employment due to a lack of opportunities for traditional employment (Standing, 2011). Therefore, labour market integration is influenced by a range of factors, including demographic characteristics, education and training, social networks, institutional factors, migration and self-employment. Some of these factors are beyond the control of the government.

### **3.5 LABOUR MARKET INTEGRATION POLICIES FOR GRADUATES**

Labour market integration policies are aimed at facilitating the entry and participation of individuals in the labour market and enhancing their ability to secure stable and productive employment. These policies are designed to address the various factors that may hinder labour market integration, including demographic characteristics, education and training, social networks and institutional factors. Some examples of labour market integration policies follow.

#### **3.5.1 Education and training programmes**

Education and training programmes are an important component of labour market integration policies (Kahanec & Zimmermann, 2010). Active labour market programmes can help individuals to acquire the skills and experience necessary to secure employment (Constant & Zimmermann, 2011). Anti-discrimination policies and regulations can help to reduce discrimination and bias in the labour market (Guzman & Kacperczyk, 2015). In South Africa the Department of Education (1995) drafted a white paper on education and training which was later published. This was the first policy document on education and training by South Africa's first democratically elected government which was developed to correct the injustices of the past. However, this working document is still lacking in many areas as indicated on our statistics pertaining to education and training programmes in more recent years. High levels of youth unemployment, the number of learners enrolled and completing a grade twelve national certification and thereafter the intake of graduates and those completing their degree in a few years ^^ sentence incomplete.

### **3.5.2 Employment services and job placement programmes**

Employment services and job placement programmes are designed to help individuals find and secure employment (Larsen, 2007). Active labour market programmes can help individuals to acquire the skills and experience necessary to secure employment (Hansen, 2012). Social assistance programmes provide financial support to individuals who are unable to work (Greenberg *et al.*, 2016). Anti-discrimination policies and regulations can reduce discrimination and bias in the labour market (Neumark & Stock, 2007).

### **3.5.3 Active labour market programmes**

Active labour market programmes are designed to help unemployed individuals to re-enter the labour market. According to Hansen (2012) these programmes may include training and skills development programmes, job placement services, and wage subsidies for employers. Such programmes can help individuals to acquire the skills and experience necessary to secure employment and can provide financial incentives to employers to hire unemployed workers.

### **3.5.4 Social assistance programmes**

Social assistance programmes are designed to provide financial support to individuals who cannot work due to various reasons, such as disability, illness or caring responsibilities. These programmes may include income support, health care benefits, and other forms of social support. Such programmes can help alleviate the financial hardship experienced by individuals who are unable to work and can provide a safety net for those who are unable to find employment (Ziliak, 2013).

According to Svabova and Kramarova (2021), with the aim of supporting the employability of young graduates in Slovakia, the government has decided on various measures aimed at this group of unemployed people, including contributions to graduate practice. The overall goal of this measure is to reduce the unemployment rate among young job seekers under 26 years of age. The specific goal is to support the competitiveness of young graduates and thereby help them gain employment and long-term sustainability in the labour market through the accumulation of work experience, professional skills and good working habits.

### **3.5.5 Anti-discrimination policies and regulations**

Anti-discrimination policies and regulations are designed to protect individuals from discrimination in the labour market, and to promote equality of opportunity. Such policies and regulations may include laws and regulations prohibiting discrimination based on gender, race, ethnicity, disability or other factors (Neumark & Stock, 2007). Such policies and regulations can help reduce discrimination and bias in the labour market and promote greater diversity and inclusivity.

Labour market integration policies are aimed at facilitating the entry and participation of individuals in the labour market and enhancing their ability to secure stable and productive employment. These policies include a range of programmes and initiatives aimed at addressing the various factors that may hinder labour market integration, including demographic characteristics, education and training, social networks and institutional factors (Piton & Ruysen, 2022).

### **3.5.6 Graduate labour market integration measures**

Graduate labour market integration is a critical subject in higher education and employment policy since it indicates recent graduates' success in transferring into the labour market. According to the research of Turmo-Garuz *et al.* (2019), several elements can impact this integration process. Jackson and Rowe (2023) contend that the relevance of the academic degree obtained to the job market, as well as the individual's networking talents, play important roles in graduate labour market integration. Individuals with degrees in high-demand sectors, for example, have greater integration chances (Cranmer, 2006).

Additionally, government policies and educational institutions play a part in this process. According to Svabova and Kramarova (2021), policies that encourage internships, career counselling services, and incentives for firms to recruit recent graduates can increase integration rates. Furthermore, schools that emphasise practical skills and real-world experience for students are more likely to contribute to their effective labour market integration (Tastsoglou & Preston, 2005). Given these findings, it is critical that governments and educational institutions work together to develop a more integrated graduate labour market.

**Table 3-3: Graduate labour market integration measures**

Measure Type	Advantages	Disadvantages
Second chance	It provides graduates with a new start for those who might have had prior setbacks in the labour market.	This may require some additional financial resources and responsibilities. Furthermore, there might be limited capacity for new intakes.
Labour market training	This will lead to an enhancement in job-specific skills which will increase employability possibilities in the long run.	It is a time-consuming and resource-intensive process which places a lot of responsibility on both the students and institutions in order for them to grow.
Apprenticeships	This will ensure hands-on experience and mentorship from industry. This could lead to higher employment rates.	There is a possibility that it might not be available in all industries and regions and so lead to a lower income initially.
Traineeships	This is a combination of learning and work experience and later on expertise in a given field. It is a good transition into the labour market – bridging the gap between studying and working.	The quality of certain programmes is variable and a few standardising issues may arise, resulting in low compensation for trainees.
Wage subsidies	This encourages employers and industries to hire more graduates which reduces the initial labour costs associated with graduate development.	This may lead to temporary employment only. There is also the potential for misuse and fraud in such a vulnerable system.
Self-employment / entrepreneurship	It creates opportunities for innovation and independence in the labour market and certain industries. It has the potential for higher earnings when the business is growing at a steady rate.	It is a possible pathway for high risk and uncertainty. There is also the challenge of lack of job security in the long run.

Source: Adapted from Rosas & Rossignotti (2005) and ILO (2017)

To summarise, improving graduate labour market integration is a multifaceted challenge that has been addressed through a variety of strategies. Each measure as discussed in Table 3-3, whether it consists of second chance programmes, labour market training, apprenticeships, traineeships,

wage subsidies or self-employment/entrepreneurship, has its own set of advantages and disadvantages.

The most appropriate integration approach should consider the individual conditions and aspirations of both graduates and policymakers. A comprehensive approach integrating numerous approaches may be the most effective method to handle graduates' unique requirements and the labour market's difficulties (Jackson & Collings, 2018). Furthermore, continual study and assessment are required to refine these indicators and ensure that they continue to meet the changing demands of graduates seeking effective labour market integration (Mason *et al.*, 2009). Therefore, the study will further analyse the qualitative data which include the socio-economic factors for graduate labour market integration, as Section 3.4 discusses in more detail.

### **3.6 SOCIO-ECONOMIC FACTORS IMPACTING GRADUATE LABOUR MARKET INTEGRATION**

Socio-economic factors play a critical role in shaping the economic and social development of nations, regions and the world. The interplay of various socio-economic factors such as education, income distribution, employment, political stability and access to basic amenities affects a nation's quality of life, economic growth and sustainability (Perig *et al.*, 2020). According to the United Nations Development Programme (UNDP), the Human Development Index (HDI) measures the progress of a nation based on three indicators: life expectancy, education and income (UNDP, 2020). In 2020, Norway ranked highest in the HDI, followed by Ireland, Switzerland, and Hong Kong, while Nigeria, a country located in West Africa, ranked the lowest. These rankings show that access to basic amenities, education and economic growth have a direct impact on the quality of life and socio-economic development of a country.

In addition, globalisation and trade play a critical role in shaping socio-economic factors globally. The globalisation of the world economy has led to the integration of markets and increased trade across borders, providing opportunities for countries to access new markets, technologies and investment (Ohei *et al.*, 2019). However, globalisation has also widened the economic disparities between developed and developing nations, leading to increased inequality and social unrest (Stiglitz, 2019). Therefore, socio-economic factors such as access to education, employment opportunities and basic amenities must be addressed to ensure equitable development globally. Furthermore, according to the International Monetary Fund (IMF) (2021), from an international

perspective, socio-economic factors refer to the socio-economic relationships between countries, including trade agreements, foreign aid and international organisations such as the World Bank and (IMF).

International aid and assistance can be a significant factor in supporting socio-economic development in developing nations (van de Rhee, 2012). However, aid can also be misused, leading to corruption and hindering development (Easterly, 2006). Furthermore, international trade agreements can impact socio-economic factors such as job creation, economic growth, and access to markets. In addition, socio-economic factors such as education, healthcare, employment and income distribution play a critical role in shaping development and progress. For example, access to education and healthcare can increase human capital, leading to economic growth and improved living standards (Barro & Lee, 2013). Income inequality can lead to social unrest and hinder socio-economic development (Piketty, 2014). Additionally, political stability and effective governance can impact the success of socio-economic policies and programmes.

South Africa has experienced significant socio-economic changes since the end of apartheid in 1994. However, the country still faces many socio-economic challenges, including income inequality, unemployment and inadequate access to basic amenities such as water and electricity (Stats SA, 2020; van de Rhee, 2012). These factors have contributed to social unrest and political instability in the country. Additionally, the COVID-19 pandemic has exacerbated these challenges, leading to increased poverty and unemployment (World Bank, 2021).

All these factors are often interrelated and can include a range of economic, social and cultural dimensions. Understanding the impact of socio-economic factors is critical for designing effective policies and programmes aimed at promoting social and economic development. According to Schueler (2023), one key socio-economic factor is income inequality, which refers to the unequal distribution of income within a society. Income inequality can have a range of negative social and economic consequences, including lower levels of social mobility, poorer health outcomes and reduced economic growth (Stiglitz, 2012). Other important socio-economic factors include access to education, healthcare and basic services, as well as broader issues related to social inclusion, political stability and environmental sustainability (UNDP, 2016). In addition, socioeconomic factors are shaped by historical and structural factors, including colonialism, globalisation, and domestic policies that perpetuate inequality and exclusion. For example, in South Africa, the legacy of apartheid has left deep social and economic divides, which have been exacerbated by

global economic trends and domestic policy choices (Seekings & Natrass, 2015). Understanding these historical and structural factors is critical for addressing the root causes of socio-economic challenges and designing effective policy interventions aimed at promoting more just and equitable societies.

Global trends, including the rise of the knowledge economy, changing demographics, and the increasing importance of environmental sustainability also influence socio-economic factors. For example, the growing importance of knowledge and innovation in the global economy has led to increased demand for education and skills training, creating new opportunities and challenges for individuals and communities (OECD, 2019).

### **3.7 SOCIO-ECONOMIC THEORIES FRAMEWORK**

Socio-economic theories provide a framework for understanding how social and economic factors interact and shape the development of societies. This literature review discusses the major socio-economic theories that have influenced the field of economics, sociology and political science. Understanding the impact of socio-economic factors is critical for designing effective policies and programmes aimed at promoting social and economic development (Keizer, 2005).

According to Karamessini (2010), by addressing the underlying drivers of inequality and exclusion, policymakers can create more just and equitable societies that promote social and economic well-being for all. Socio-economic factors play a significant role in shaping the nature and prevalence of different types of unemployment. For example, education and training are critical in reducing structural unemployment. Access to education and training can increase human capital, leading to a better match between the skills of workers and the available job opportunities (Barro & Lee, 2013).

Additionally, labour market policies such as minimum wage laws, unemployment insurance and job training programmes can reduce unemployment and improve job quality (OECD, 2019). Income distribution can also affect the prevalence of unemployment. High levels of income inequality can lead to reduced demand for goods and services, which can lead to cyclical unemployment. Moreover, income inequality can lead to social unrest and political instability, leading to increased frictional and structural unemployment (Piketty, 2014).

Lastly, political stability and effective governance can also affect the prevalence of unemployment. Political instability and weak governance can lead to uncertainty and discourage investment,

leading to reduced job opportunities and increased unemployment (Acemoglu & Robinson, 2012). Conversely, effective governance can lead to better labour market policies and increased access to education and training, leading to reduced unemployment. In the next section, the different types of unemployment are reviewed and discussed in full.

**Table 3-4: Socio-economic theories framework**

Theory	Description
<p><b>Classical Economics -</b> (Smith, 1776)</p>	<p>Classical economics emerged in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries as a response to the mercantilist economic policies of the time. The key figures of classical economics include Adam Smith, David Ricardo, and Thomas Malthus. The theory emphasises the role of free markets in allocating resources and promoting economic growth. The classical economists believed that the invisible hand of the market would lead to optimal outcomes, with prices reflecting the true value of goods and services.</p>
<p><b>Marxism –</b> (Marx, 1867).</p>	<p>Marxism is a socio-economic theory developed by Karl Marx in the mid-19<sup>th</sup> century. The theory emphasises the importance of class struggle and the exploitation of workers by capitalists. Marx argued that the profits generated by workers' labour are taken by capitalists, leading to an unequal distribution of wealth and power. Marxism calls for the elimination of private ownership of the means of production and the establishment of a socialist or communist society.</p>
<p><b>Neoclassical Economics -</b> (Samuelson, 1947).</p>	<p>Neoclassical economics emerged in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries as a response to the perceived shortcomings of classical economics. The theory emphasises the importance of individuals' utility maximisation and rational decision-making in shaping economic outcomes. Neoclassical economics also incorporates mathematical models and empirical data to test and refine economic theories.</p>
<p><b>Institutional Economics -</b> (Veblen, 1919).</p>	<p>Institutional economics emerged in the early 20<sup>th</sup> century as a response to neoclassical economics' focus on individual behaviour. The theory emphasises the role of institutions, such as laws, customs, and social norms, in shaping economic outcomes. Institutional economists argue that institutions shape individuals' behaviour and incentives, leading to different economic outcomes.</p>

<p><b>Development Economics –</b> (Sen, 1981).</p>	<p>Development economics emerged in the mid-20<sup>th</sup> century as a response to the economic challenges faced by developing countries. The theory emphasises the role of institutions and policies in promoting economic growth and reducing poverty. Development economists argue that institutions and policies must be tailored to the unique circumstances of each country to promote sustainable development.</p>
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Source: Author’s own compilation.

**3.8 TYPES OF UNEMPLOYMENT**

Unemployment is a phenomenon that occurs when individuals who are able and willing to work are unable to find employment. There are different types of unemployment, each with different causes and consequences. Unemployment is often categorised into various types. This can be very helpful when formulating policy as different causes of unemployment require different solutions. The most common classifications are presented below.



Figure 3-8: Unemployment classifications

Source: Author’s own compilation

**3.8.1 Unemployment classifications**

**3.8.1.1 Structural unemployment**

According to Diamond (2013), structural unemployment refers to a type of unemployment that occurs as a result of a mismatch between the skills and qualifications of job seekers and the

demands of available job openings. It occurs due to changes in the structure of the economy, such as shifts in technology, changes in consumer preferences, and globalisation (Zayniddin, 2021). The mismatch results in some individuals being unable to find work despite available job opportunities, leading to unemployment (Chen, Wang & Zhu, 2022).

There are several different views on structural unemployment, which can have implications for how it is understood and addressed. One view suggests that structural unemployment is largely a result of individual factors, such as a lack of education or training (Hansla, 2015). According to this view, addressing structural unemployment requires investing in education and training programmes to help individuals acquire the skills needed for available job opportunities.

Another view suggests that structural unemployment is a result of broader economic and social factors, such as globalisation and changes in the structure of the labour market (Autor, 2015). According to this view, addressing structural unemployment requires addressing these broader structural factors, such as investing in infrastructure, promoting innovation and implementing policies that promote inclusive growth. Practical examples of structural unemployment can be seen in many different sectors and industries. For example, the decline of traditional manufacturing industries in many developed countries has led to high levels of structural unemployment, as workers in these industries often lack the skills and qualifications needed for available job opportunities in other sectors (Autor, 2015). Similarly, the rise of automation and the growth of the gig economy have also contributed to structural unemployment, as workers may lack the skills and qualifications needed for available job opportunities in these sectors.

In South Africa, structural unemployment is a significant challenge, particularly for young people and individuals without a tertiary education (StatsSA, 2021). The country's labour market is characterised by a significant skills mismatch, with many job openings requiring high levels of education and training that are not accessible to many workers. This has led to high levels of structural unemployment and persistent inequality in the labour market.

However, structural unemployment remains a complex and multifaceted challenge that requires a nuanced understanding of the different factors that contribute to it. Addressing structural unemployment requires a range of policy interventions, including investment in education and training programmes, as well as broader structural reforms aimed at promoting inclusive growth and addressing the underlying causes of unemployment.

In addition, structural unemployment occurs due to inefficiencies in the labour market. It may occur due to a mismatch of skills or geographical location. For example, structural unemployment could be due to the factors listed below.

- **Occupational immobility:** Although many people do not have the necessary abilities and skills-sets, skilled positions can be available. However, occasionally businesses may find it difficult to hire during times of high unemployment. The reason for this is due to their occupational immobility meaning that they either lack the necessary skills or ability to complete a certain task as required from the business.
- **Geographical immobility:** Jobs may be available in New Zealand or Netherlands, but unemployed workers may be unable to move there due to difficulties such as finding adequate housing, current lack of finances or their inability to get a VISA if necessary.
- **Technological changes and advancements:** If an economy goes through technological change, some industries will decline. This is likely to lead to structural unemployment. For example, new technology (nuclear power) could make coal mines close down, leaving many coal miners unemployed (Chen *et al.*, 2022).

### 3.8.1.2 Frictional unemployment

Frictional unemployment in South Africa occurs when workers are unemployed and looking for new employment opportunities. This type of unemployment is a natural part of the labour market and can be reduced by policies that increase the efficiency of the job matching process, such as job search assistance and training programmes (Lederman & Zouaidi, 2022).

According to Axtell, Guerrero and López (2019), frictional unemployment is a type of unemployment that occurs due to the normal process of job turnover in the labour market. It is the temporary unemployment that occurs when workers leave their current jobs in search of new and better employment opportunities. Frictional unemployment is a natural and inevitable feature of the labour market as it takes time for job seekers to find a suitable job that matches their skills and preferences (Li & Zeng, 2022).

There are different views on frictional unemployment, which have implications for how it is understood and addressed. One view suggests that frictional unemployment is primarily due to individual factors, such as a lack of job search skills or mobility (Mankiw, 2014). According to this

view, addressing frictional unemployment requires improving job search skills and increasing geographic mobility. On the other hand, Blanchard and Diamond (1994) suggested that frictional unemployment is largely a result of broader economic factors, such as technological changes and shifts in the demand for certain skills and occupations. According to this view, addressing frictional unemployment requires policies that promote job creation, including investment in infrastructure and education, and support for new and emerging industries (Lederman & Zouaidi, 2022).

Practical examples of frictional unemployment can be seen in many different industries and sectors. For instance, high-skilled workers may leave their jobs to pursue better-paying opportunities in other industries, while new graduates may take time to find a job that matches their skills and qualifications (Mankiw, 2014). In addition, seasonal fluctuations in employment, such as in the agricultural sector, can also contribute to frictional unemployment. In South Africa, frictional unemployment is also a significant challenge, particularly for young people and individuals with limited job search skills (StatsSA, 2021). The country's labour market is characterised by a high rate of labour market turnover, with many workers leaving their jobs in search of better opportunities. This has led to a high rate of frictional unemployment, which can be exacerbated by structural factors such as a lack of investment in education and training programmes.

Overall, Carrère *et al.* (2015) view frictional unemployment as a natural and necessary part of the labour market, but it can also have negative consequences for individuals and society. Addressing frictional unemployment requires a range of policy interventions, including investment in education and training programmes, policies that promote job creation, and support for workers during job transitions.

### **3.8.1.3 Seasonal unemployment**

According to Hassett and Metcalf (1995), seasonal unemployment in South Africa is caused by fluctuations in demand for labour due to seasonal factors, such as agriculture, tourism and construction. This type of unemployment is typically temporary but can be severe during periods of prolonged seasonality (South African Reserve Bank, 2021).

According to Behera (2015), seasonal unemployment is a type of unemployment that occurs due to changes in the demand for labour during different seasons or periods of the year. It is a temporary type of unemployment that is associated with fluctuations in the demand for labour

across different industries and regions. Seasonal unemployment can occur in both agricultural and non-agricultural sectors and can affect both skilled and unskilled workers (Ozoda & Shohruh, 2023). There are different views on seasonal unemployment, which have implications for how it is understood and addressed. One view suggests that seasonal unemployment is a natural and inevitable feature of the labour market and can be addressed through policies that promote job flexibility and mobility (OECD, 2019). According to Naftanaila *et al.* (2016), seasonal unemployment is a result of the mismatch between the supply and demand for labour during different seasons, and policies such as education and training programmes that enable workers to acquire new skills and move between industries can help to address it.

Furthermore, seasonal unemployment is a result of broader structural factors, such as the lack of economic diversification, the concentration of certain industries in specific regions, and the absence of policies that support alternative employment opportunities (UNIDO, 2012). According to Bhowmik (2020), addressing seasonal unemployment requires policies that promote economic diversification, including investment in new industries, support for small and medium-sized enterprises, and the development of alternative income-generating activities.

Practical examples of seasonal unemployment can be seen in many different industries and sectors. In the agricultural sector, for instance, seasonal unemployment can occur when workers are hired for planting, harvesting, or processing crops, but are then laid off when the season ends (OECD, 2019). In the tourism sector, seasonal unemployment can occur during the low season when there is a drop in demand for tourism-related services, such as hotels, restaurants, and tour guides (Matandare, 2018). In South Africa, seasonal unemployment is also a significant challenge, particularly in the agricultural and tourism sectors (StatsSA, 2022). The country's labour market is characterised by a high rate of seasonality, with many workers employed on a seasonal basis. This has led to a high rate of seasonal unemployment, which can be exacerbated by structural factors such as a lack of investment in alternative industries and regions (Soylu *et al.*, 2018).

Overall, seasonal unemployment is a natural and necessary part of the labour market, but it can also have negative consequences for individuals and society. Addressing seasonal unemployment requires a range of policy interventions, including investment in education and training programmes, policies that promote job flexibility and mobility, and support for alternative income-generating activities (Ahamad *et al.*, 2011).

### **3.8.1.4 Cyclical unemployment**

Cyclical unemployment is a type of unemployment that occurs due to fluctuations in the business cycle. It is caused by changes in the level of aggregate demand in the economy, which can lead to changes in the demand for labour across different sectors and industries. When the economy is in a recession or downturn, there is typically a decline in aggregate demand, which can lead to a reduction in the demand for labour, resulting in higher levels of cyclical unemployment (Diamond, 2013).

There are different views on the causes and consequences of cyclical unemployment, which have implications for how it is understood and addressed. One view suggests that cyclical unemployment is a result of macroeconomic imbalances, such as fluctuations in the level of aggregate demand and monetary policy (Blanchard & Summers, 1987). According to this view, addressing cyclical unemployment requires policies that stabilise the business cycle and promote economic growth, including fiscal and monetary policies that support aggregate demand and investment.

Hence, many researchers, such as Diamond (2013), Amadeo (2020) and Ogujiuba and Cornelissen (2020), view cyclical unemployment as a result of structural factors, such as changes in technology and globalisation, which can lead to changes in the demand for labour across different sectors and regions (Acemoglu, 2002). According to this view, addressing cyclical unemployment requires policies that promote structural adjustments, including investment in education and training programmes, policies that promote labour market flexibility and mobility, and support for alternative income-generating activities.

Practical examples of cyclical unemployment can be seen in many different sectors and industries. During an economic recession or downturn, for instance, the demand for housing and construction typically declines, leading to job losses in the construction industry (Blanchard & Summers, 1987). Similarly, during a recession, the demand for luxury goods and services, such as high-end restaurants, may decline, leading to job losses in the hospitality sector (Acemoglu, 2002). In South Africa, cyclical unemployment is also a significant challenge, particularly during periods of economic downturn (StatsSA, 2021). The country's labour market is highly dependent on the performance of the global economy, which can lead to fluctuations in the demand for labour across different sectors and regions. This has led to a high rate of cyclical unemployment, which

can be exacerbated by structural factors such as a lack of investment in education and training programmes.

Overall, cyclical unemployment is a complex and multifaceted phenomenon, which requires a range of policy interventions to address. These interventions include stabilising the business cycle through fiscal and monetary policies, promoting structural adjustments through education and training programmes, and supporting alternative income-generating activities (Dagume & Gyekye, 2016).

Although all types may be relevant in the case of graduates, structural and frictional unemployment appears to affect graduates predominantly in the South African labour market.

### **3.9 MODELS OF LABOUR MARKET INTEGRATION**

There are several models of labour market integration, each with its own set of assumptions and characteristics. Some of the most common models include those devised by Zimmermann (2003); Bonin, Rinne and Zimmermann (2013); Kahanec and Zimmermann (2008); Massey *et al.* (1993); Portes and Rumbaut (2006); Sassen (2006); Wilson (1987); Waldinger (1996); Borjas, (1990); and Dustmann and Preston (2001) and are set out below:

**Assimilation model:** This model assumes that immigrants will eventually become like the native-born population in terms of labour market outcomes. Immigrants are expected to acquire the skills and knowledge necessary to succeed in the host country's labour market over time, and any differences in labour market outcomes between immigrants and the native-born population are attributed to differences in human capital, language proficiency and other individual characteristics.

**Dual labour market model:** This model assumes that there are two distinct labour markets in the host country: a primary market that offers good wages, job security, and opportunities for advancement; and a secondary market that offers low wages, poor working conditions, and limited opportunities for advancement. Immigrants are more likely to be employed in the secondary market due to discrimination or other barriers that limit their access to the primary market.

**Ethnic enclave model:** This model assumes that immigrants will form their own communities and economies within the host country, where they can work and do business with each other. These

communities are often concentrated in specific neighbourhoods or industries, and they may have their own social norms, institutions, and networks that facilitate labour market.

**Human capital model:** This model assumes that differences in labour market outcomes between immigrants and the native-born population are primarily due to differences in human capital, such as education, training, and work experience. Immigrants who have higher levels of human capital are expected to have better labour market outcomes than those with lower levels of human capital.

**Transnationalism model:** This model assumes that immigrants maintain strong ties to their countries of origin while also participating in the labour market of the host country. Immigrants may send remittances back to their families in their countries of origin, invest in businesses or properties in their home countries, or maintain social and cultural connections with their home communities. This model emphasises the importance of transnational networks and the ways in which they can facilitate labour market integration. Therefore, the various models also conform to economic conditions in the labour market integration process which is discussed in the Section 3.9 below.

### **3.9.1 Economic conditions in labour market integration**

#### **3.9.1.1 Economic climate**

Economic climate theory suggests that the state of the host country's economy plays a significant role in the labour market's integration of immigrants. According to this theory, the economic climate can affect the demand for labour, the availability of jobs, and the willingness of employers to hire immigrants. During economic downturns, immigrants may also face additional barriers to labour market integration, such as discrimination, language barriers, and lack of recognition of foreign credentials. Research has found mixed evidence for the role of economic climate in labour market integration. Some studies have found that economic recessions can lead to higher levels of discrimination and lower rates of employment for immigrants (Sá *et al.*, 2019), while others have found that economic booms can create more opportunities for immigrants to find employment and improve their labour market outcomes (Friedman *et al.*, 2011).

For example, in the United States, economic downturns have been associated with higher levels of discrimination against immigrants, particularly those who are perceived to be undocumented (Espenshade & Hempstead, 1996). During the great recession of 2008-2009, immigrants were

more likely to experience job loss and reduced hours compared to the native-born population (Aizenman & Pinto, 2011). Similarly, during the COVID-19 pandemic, immigrants and racial minorities were disproportionately affected by job losses and economic insecurity (Karpman *et al.*, 2021). On the other hand, some studies have found that economic booms can lead to improved labour market outcomes for immigrants. For example, a study of labour market integration among immigrants in Canada found that economic growth was positively associated with the employment and earnings of immigrants (Ferrer & Riddell, 2008). Similarly, a study of the Swedish labour market found that economic growth was positively associated with the employment rates of immigrants, although the effects were smaller than for the native-born population (Akgündüz & van den Berg, 2013).

### **3.9.1.2 Economic globalisation**

Economic globalisation theory suggests that the increasing interconnectedness of the global economy has implications for labour market integration of immigrants. This theory posits that economic globalisation leads to increased competition in the labour market, which can create both opportunities and challenges for immigrants (Rinne & Zimmermann, 2021). On the one hand, globalisation can lead to increased demand for highly skilled workers, which can benefit highly educated immigrants with in-demand skills. On the other hand, globalisation can also lead to increased competition for low-skilled jobs, which can create barriers to labour market integration for low-skilled immigrants.

Some studies have found that globalisation can lead to improved labour market outcomes for immigrants, particularly those with in-demand skills. For example, a study of labour market integration among immigrants in the United Kingdom found that globalisation was positively associated with the employment and earnings of highly skilled immigrants (Dustmann *et al.*, 2011). Similarly, a study of the Canadian labour market found that immigrants with in-demand skills had higher employment rates and earnings than their Canadian-born counterparts (Galarnreau & Morissette, 2004). Other studies, however, have found that globalisation can create challenges for labour market integration, particularly for low-skilled immigrants. For example, a study of labour market integration among immigrants in the European Union found that globalisation was negatively associated with the employment rates of low-skilled immigrants (Rinne & Zimmermann, 2012). Similarly, a study of the labour market outcomes of Mexican

immigrants in the United States found that globalisation had a negative effect on the employment rates and earnings of low-skilled Mexican immigrants (Camarota, 2002).

However, the relationship between economic globalisation and labour market outcomes for immigrants is complex. It can vary depending on a range of factors, including the specific context and the characteristics of the immigrant population.

### **3.9.1.3 Vocational specificity of the educational system**

The vocational specificity of the educational system theory suggests that vocational education and training programmes can play an important role in labour market integration of immigrants. This theory has implications both globally and nationally, including in South Africa. Globally, vocational education and training programmes have been shown to improve immigrants' employment outcomes effectively. For example, a study of the labour market outcomes of immigrants in the European Union found that vocational education and training programmes effectively improved the employment outcomes of immigrant workers (OECD/European Commission, 2015). Similarly, a study of integrating refugees into the labour market in Sweden found that vocational education and training programmes effectively improved the employment outcomes of refugees (Bevelander & Pendakur, 2014).

Nationally, the effectiveness of vocational education and training programmes in improving labour market integration can depend on the specific context. For example, in Australia, vocational education and training is effective in improving employment outcomes for immigrants (Chiswick & Miller, 2009). In South Africa, however, the lack of vocational education and training programmes has been identified as a barrier to the labour market integration of immigrants (Giese, 2014). In South Africa, the vocational specificity of the educational system has been identified as a challenge for the labour market integration of immigrants. The South African educational system is highly specialised, focussing on providing technical and vocational education and training to a limited number of students (Reddy & Nkomo, 2017). This limited focus on vocational education and training can create barriers to the labour market integration of immigrants who may lack the necessary skills and knowledge to succeed in specific occupations.

## **3.10 SYNOPSIS**

Overall, economic climate theory suggests that the state of the host country's economy can play a significant role in the labour market integration of immigrants. However, the relationship

between economic conditions and labour market outcomes for immigrants is complex and can vary depending on a range of factors, including the specific context and the characteristics of the immigrant population. In addition, the overall economic globalisation theory suggests that the increasing interconnectedness of the global economy can have implications for the labour market integration of immigrants.

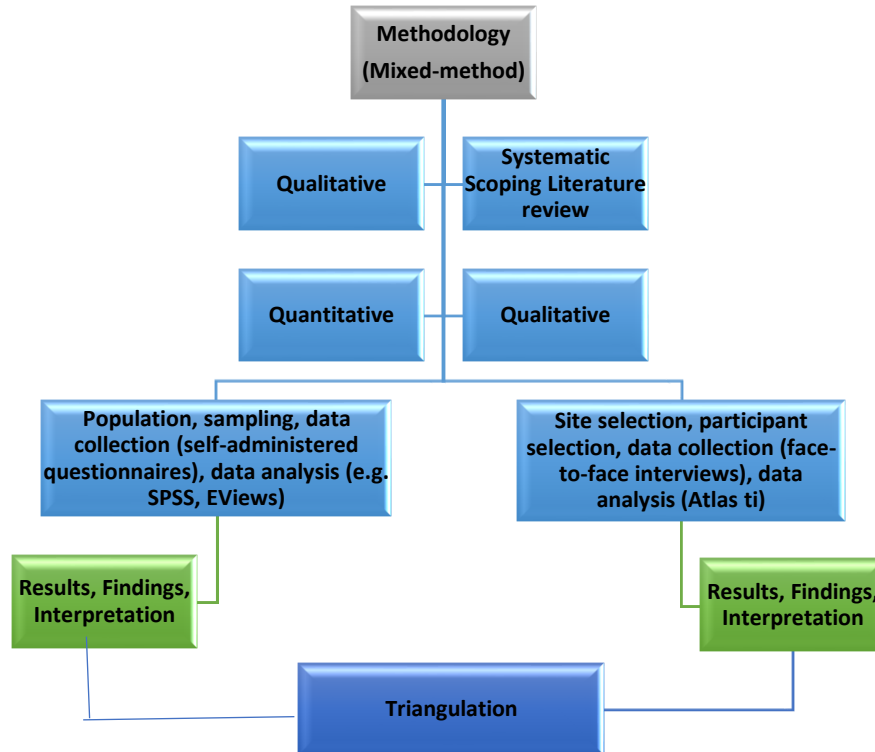
The study found that microeconomic theory provides a framework for understanding the behaviour of workers and firms in the labour market, and how market forces and incentives determine employment and wage outcomes. Institutional economics emphasises the importance of social and political institutions in shaping labour markets. Institutional economists argue that labour markets are embedded within larger social structures, such as legal and political systems, which can influence the bargaining power of workers and employers. Institutions such as unions, minimum wage laws, and worker protections can increase the bargaining power of workers and reduce labour market inequality. Institutional economics also emphasises the importance of historical and cultural factors in shaping labour markets, as different societies have different institutional frameworks that affect how labour market's function.

To address these economic challenges in the labour market, there have been calls for the South African educational system to expand its focus on vocational education and training and to provide more opportunities for immigrants to access these programmes (Giese, 2014; Reddy & Nkomo, 2017). Overall, the vocational specificity of the educational system theory suggests that vocational education and training programmes can play an important role in labour market integration of immigrants both globally and nationally, including in South Africa.

Lastly, socio-economic factors play a significant role in shaping development and progress globally, internationally, nationally, and in South Africa. Access to basic amenities, education, healthcare, employment opportunities, income distribution, political stability and effective governance are critical to sustainable development. Therefore, policymakers and stakeholders must prioritise these factors to address the challenges and promote socio-economic development.

## **CHAPTER 4: RESEARCH METHODOLOGY**

*"Methodology is intuition reconstructed in tranquillity". - Paul Lazarsfeld*



**Figure 4-1: Framework chapter four**

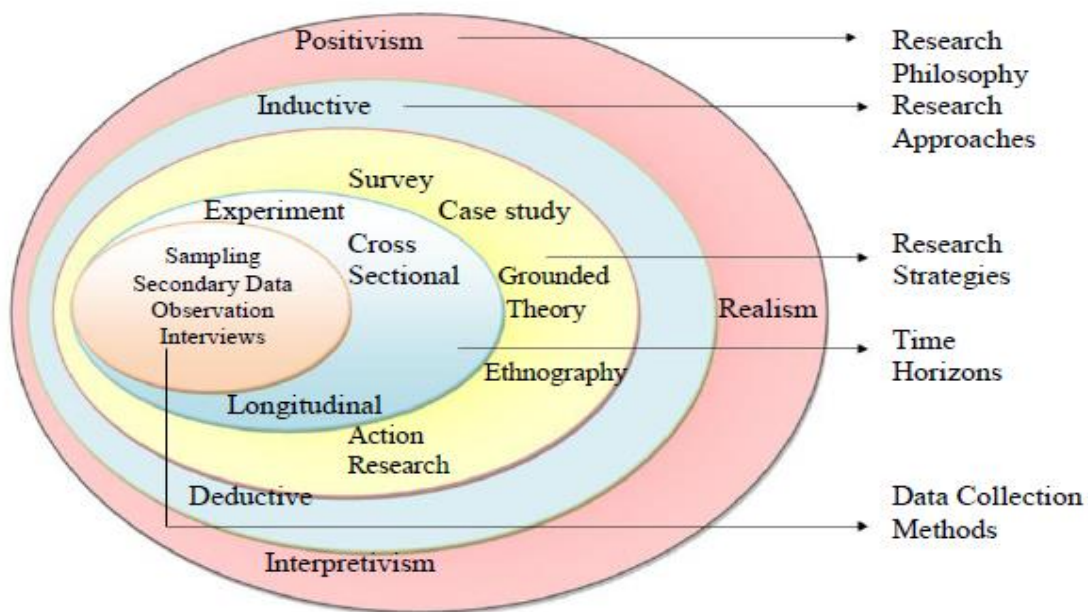
Source: Compiled by author

#### 4.1 INTRODUCTION

This chapter describes the methodological framework applied throughout the study, providing more detailed discussion on how the study sought to achieve the objectives identified in Chapter 1 (Section 1.3). This chapter of the study is devoted to the development of the desired methodology and technique used through the study process which provides in-depth explanation of how the research design and methodology were conducted. The research aims and objectives are restated in Chapter 5 section 5.1. Section 4.2 in Chapter 4 provides the research paradigm used in this study, followed by the philosophical foundations. Sections 4.3 and 4.4 give an overview of the research approach as well as the research design used in the study. Furthermore, the sampling method used is described in Section 4.5, and Section 4.6 describes the data collection process. All ethical considerations in relation to the research are also highlighted in this

section. In addition, Section 4.7 provides the model and technique of analysis used in the study, while the summary and conclusion are presented in Section 4.8.

The study seeks to analyse the antecedents of graduate labour immobility in South Africa through a mixed method approach, which offers a summary of the crucial factors that must be considered and carefully examined before beginning any research. The various layers of the onion as shown in Figure 4-2 provide a framework for thinking about the researcher’s philosophical orientation, research approach, appropriate research strategies, review of research timelines, and the data collection methods used (Saunders *et al.*, 2003).



**Figure 4-2: Research methodology process onion**

Source: Adapted from Saunders *et al.* (2003:83)

## 4.2 RESEARCH PARADIGM AND PHILOSOPHICAL FOUNDATIONS

In a mixed-method approach, researchers combine qualitative and quantitative research methods to investigate a research question comprehensively. This integrated approach allows for a deeper understanding of complex phenomena by leveraging the strengths of both qualitative and quantitative methodologies (Luo *et al.*, 2021). The choice of research paradigm and philosophical foundations in a mixed-method study depends on the researcher's theoretical perspective, epistemological stance, and the nature of the research question. The research paradigm in a

mixed-method study often reflects a pragmatic orientation. Pragmatism emphasises the practical application of knowledge and acknowledges the value of utilising different research methods to address research questions effectively (Fàbregues *et al.*, 2021). By integrating qualitative and quantitative methods, researchers can generate a more comprehensive understanding of the research topic, capture different dimensions, and provide a holistic perspective.

There are several research paradigms that are commonly used in mixed-methods research, including positivism, interpretivism, critical theory, constructivism, and pragmatism, as illustrated in Figure 4-2 (the research methodology process onion). Each of these paradigms has different assumptions about the nature of reality, the role of the researcher, the methods used to collect and analyse data, and the interpretation of findings. On the other hand, many oppose the view that the pragmatic paradigm is suitable for use in mixed method research. However, it would be irresponsible to overlook the dispute surrounding the application of pragmatism in research. Pragmatists, according to Morgan (2007), approach problems broadly, which causes important data to be lost during the investigation. Moreover, Johnson and Onwuegbuzie (2004:19) point out that until a researcher specifically addresses it, it may be difficult to determine if the techniques used by pragmatists are beneficial or feasible.

Another philosophical foundation commonly associated with mixed-method studies is constructivism. Constructivism posits the view that knowledge is constructed through individual experiences and social interactions (Creswell & Clark, 2018). Researchers adopting a constructivist perspective in a mixed-method study may use qualitative methods to explore participants' subjective experiences and perspectives, while quantitative methods can help identify patterns and relationships among variables.

Positivism, typically associated with quantitative research, can also be integrated into mixed-method studies. Positivism asserts that knowledge can be obtained through systematic observation, measurement and generalisation (Creswell & Plano Clark, 2018). In a mixed-method approach, quantitative methods such as surveys or experiments can provide numerical data, statistical analyses, and generalisable findings, aligning with a positivist epistemology.

The transformational paradigm is what Creswell (2013) refers to as the participatory paradigm and is change-oriented (Heron & Reason, 1997:278). According to participatory researchers, people ought to be actively involved in the study process (Strydom, 2011).

Lastly, the choice of research paradigm and philosophical foundations should be justified by the researcher based on the research question, context, and the strengths and limitations of each approach (Creswell, 2013). Therefore, the study paradigm applied to this study consists of both positivist and constructivist approaches as either of these paradigms independently is not sufficient for the study. The constructivist paradigm is implemented in the study's qualitative phase to understand graduate labour immobility perceptions and what barriers they face when moving within or from certain industries, while the quantitative portion of the study employs the positivist paradigm to assess and quantify graduate labour immobility which is associated with the relevant study objectives identified in Section 1.4.3 of Chapter 1.

### **4.3 RESEARCH APPROACH**

The particular research questions and study objectives have a significant impact on the chosen research technique, just as they do on the underlying paradigm. This mixed method approach begins with a qualitative scoping literature review which is the foundation of the quantitative questionnaire design based on the findings within the literature scope. Thereafter, the study starts the quantitative data gathering process through a self-administered questionnaire. Lastly, qualitative data were collected from the participants in the sample population by means of a semi-structured interview process. The purpose of an explanatory mixed method design involves the procedure of first collecting quantitative data to explain relationships found in the qualitative data analysis. The systemic framework will assist in determining the best results of the research (Creswell, 2015). Qualitative methodologies are more suitable where research issues require a deeper and more meaningful understanding, involving both historical and cultural context (Ryan, 2006). These techniques would often entail the use of instruments such as open-ended and emergent inquiries, as well as data gathered within the participants' or research objects' context (McDaniel & Gates, 2013). This would give the research the advantage of accurately representing the complexity of the topic under consideration.

The study research design will firstly focus on a scoping evidence qualitative review to identify the antecedents of labour immobility, the role of the research in occupational, geographical and factor immobility planning dynamics and make recommendations on mechanisms towards enhancing economic growth. The objective of the scoping literature review is to identify the antecedents of labour immobility and will broadly form part of the focal literature review. The

following subsection, 4.4, explains the particular research design that was used for the purpose of this research study.

#### **4.4 RESEARCH DESIGN**

According to Leedy (1997:195), a research design is a study's blueprint that provides the overarching framework for data collection. It is described by MacMillan and Schumacher (2001:166) as a strategy for choosing research participants, study locations and data collection techniques to address the research question. They also suggest that a sound research design aims to deliver conclusions that are deemed believable. Research design, according to Durrheim (2004:29), is a strategic plan of action that acts as a link between the execution and the research questions, or the application of the research plan while research methodology, according to Schwardt (2007:195) is a philosophy of how an investigation should be conducted. It entails analysing the presumptions, guiding concepts and methods used in a certain line of investigation. Methodologies explain and define the types of problems that are worthwhile investigating: what constitutes a researchable problem; testable hypotheses; how to frame a problem so that it can be investigated using specific designs and procedures; and how to choose and develop appropriate means of collecting data (Schwardt, (2007); Creswell & Tashakkori, (2007); Teddlie & Tashakkori, (2007).

##### **4.4.1 Quantitative phase**

A quantitative study design is a research methodology that focusses on collecting and analysing numerical data to answer research questions, test hypotheses, and identify patterns or relationships among variables (Bloomfield & Fisher, 2019). This type of research design is commonly used in various fields, including social sciences, natural sciences and education.

Rahmat *et al.* (2012) state that a quantitative research design is a systematic and structured approach and is based on the collection and analysis of numerical data. It is essential in a mixed-method methodology for various reasons. Firstly, quantitative research design allows for the precise measurement and quantification of correlations and patterns among variables (Agustin, 2021). This is especially useful when testing hypotheses, identifying relationships, or drawing generalisable conclusions about a broader population. It gives empirical evidence that can be statistically examined, giving the research impartiality and rigour (Jackson & Wilton, 2017).

Furthermore, quantitative data from large samples can be collected efficiently, making it valuable for drawing broad conclusions and understanding trends in various of scenarios.

Secondly, in a mixed-method technique, quantitative research design strengthens the qualitative component by providing a quantitative foundation on which qualitative findings can be built and interpreted (Ikpesu, 2017). It could serve to validate or refute the qualitative insights gained during the qualitative phase, increasing the overall credibility and robustness of the research. Quantitative data can be used to identify patterns or connections that qualitative evidence may have alluded to, assisting in the validation or refinement of the research's critical hypotheses (Salendab & Sanchez, 2023).

Huang *et al.* (2022) reiterated that by integrating the broadness and adaptability of quantitative data with the depth and context supplied by qualitative data, researchers can provide a more comprehensive understanding of the research study. Overall, incorporating quantitative research design in a mixed-method approach ensures that the research strategy is well-rounded, providing both breadth and depth of insights and enhancing the broader rigour and credibility of the study (Olanipekun & Adeyera, 2018).

#### **4.4.2 Qualitative phase**

According to Edwards (2020), a qualitative research design is a systematic and flexible strategy that aims to understand the complexity, subtleties and context of a phenomenon through the collection and analysis of non-numerical data, such as interviews, observations, or textual materials. The choice of design is crucial in qualitative research since it shapes the entire study process. Phenomenology, grounded theory, case study, ethnography, and content analysis are examples of common qualitative research designs (Ezer & Aksüt, 2021).

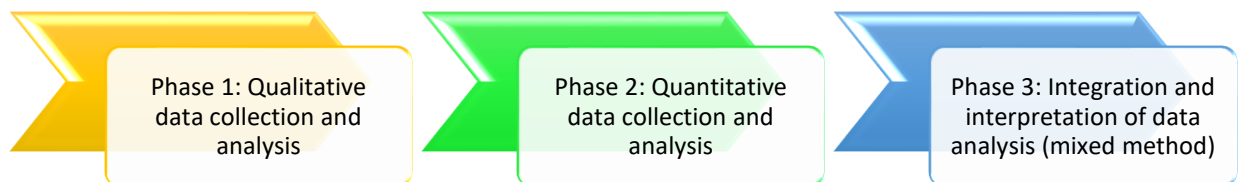
In addition, a qualitative research design is required in a mixed-method methodology for numerous reasons (Finch *et al.*, 2013). First, qualitative research is especially useful when dealing with complicated, multifaceted research problems that quantitative approaches alone cannot effectively handle. Qualitative research allows for a more in-depth understanding of the context as well as the "why" and "how" parts of a phenomenon, assisting in the discovery of underlying meanings, motivations, and social processes that quantitative data might have overlooked (Cavanagh *et al.*, 2015). Second, it enables triangulation, which is the act of correlating results from several data sources. Third, a qualitative research design contributes to the development of

quantitative research instruments by creating hypotheses that can later be tested quantitatively (Auta & Onwusuru, 2022).

#### 4.4.3 Sequential exploratory design

An exploratory sequential design aims initially to investigate a topic qualitatively using a small sample before assessing if the results translate to a larger sample. The first step of the exploratory design starts with the collection and prioritisation of qualitative data analysis. The researcher conducts a second, quantitative phase to test or generalise the initial discoveries, building on the outcomes of the exploratory phase. After that, the investigator assesses how the quantitative findings expand upon the preliminary qualitative findings (Hirose & Creswell, 2023).

The combination of quantitative and qualitative methods in an explanatory sequential design allows for a comprehensive exploration of the research question. The quantitative phase provides initial insights into relationships or associations, which can be further illuminated, contextualised, or enriched by the qualitative phase (Creswell & Clark, 2018). The qualitative phase helps generate hypotheses, theories, or models that are grounded in participants' perspectives and experiences, providing a more nuanced understanding of the research topic (Parahoo, 2006).



**Figure 4-3: Sequential Exploratory Design**

Source: Compilation by author

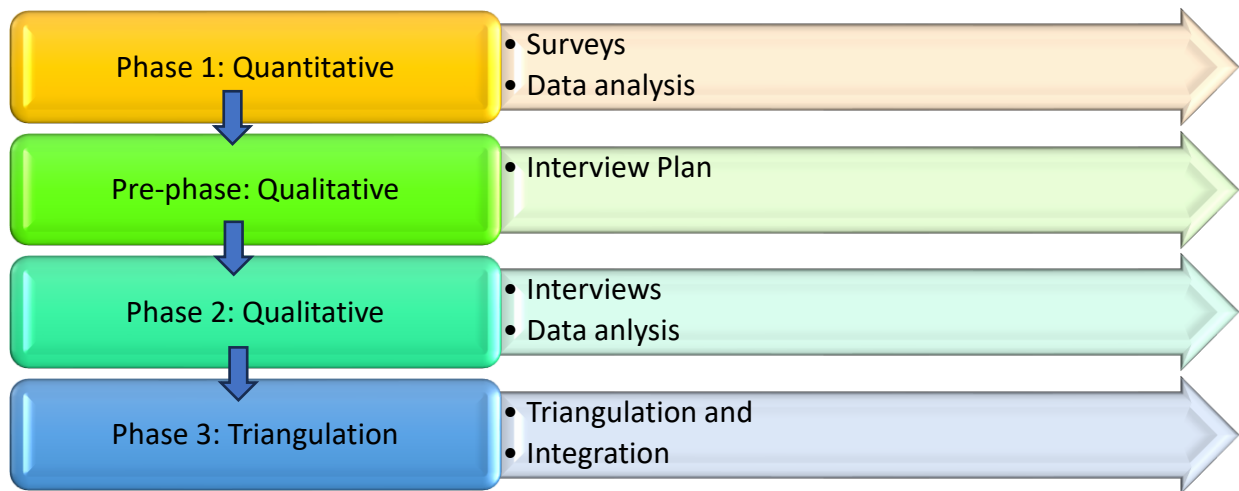
#### 4.4.4 Sequential explanatory design

Sequential explanatory design is a mixed-method study approach that integrates quantitative and qualitative data gathering and analysis in a specific sequence, making it especially useful in research projects aiming to acquire a thorough knowledge of complex phenomena (Bowen *et al.*, 2017). This approach is important in research because it enables researchers to go more deeply into their study questions and investigate the depth of a subject from both quantitative and

qualitative viewpoints. Researchers collect numerical data during the initial quantitative phase, which allows them to identify trends, test hypotheses, and generalise findings (Ivankova *et al.*, 2006).

This phase, however, may not capture the whole context, distinctions, or underlying explanations for the observed relationships. Following the quantitative phase, the qualitative phase focusses on interpreting and explaining these quantitative results by non-numerical data collection methods such as interviews, observations, or content analysis. This phase adds to the study by providing insights into the "why" and "how" components, providing a more holistic and in-depth view of the research problem (Toyon, 2021). This allows researchers to triangulate findings from both phases, by enhancing the overall validity of the research. When quantitative and qualitative data converge, researchers gain greater confidence in the results, and when they diverge, it can prompt further exploration and refinement of research questions (Othman *et al.*, 2020).

Therefore, an explanatory research design plays a vital role in research because it provides a structured and systematic approach to transitioning from quantitative data gathering and validation to qualitative data interpretation and explanation, resulting in a more robust, multifaceted and comprehensive understanding of complicated research topics.



**Figure 4-4: Sequential explanatory design**

Source: Compilation by author

The author made use of a mixed method process which was conducted by means of data collection through a systematic literature review, which informed the design of the self-administered questionnaire, after which the study conducted a qualitative data collection analysis by means of semi-structured interviews to generate the most relevant information from the selected population sample.

#### 4.4.5 Research design adopted in the study (systematic scoping review research)

A scoping literature review is a research approach that aims to map the existing literature on a particular topic, providing an overview of the breadth and depth of the research area. It involves systematically identifying, selecting and summarising relevant studies to answer specific research questions or identify research gaps.

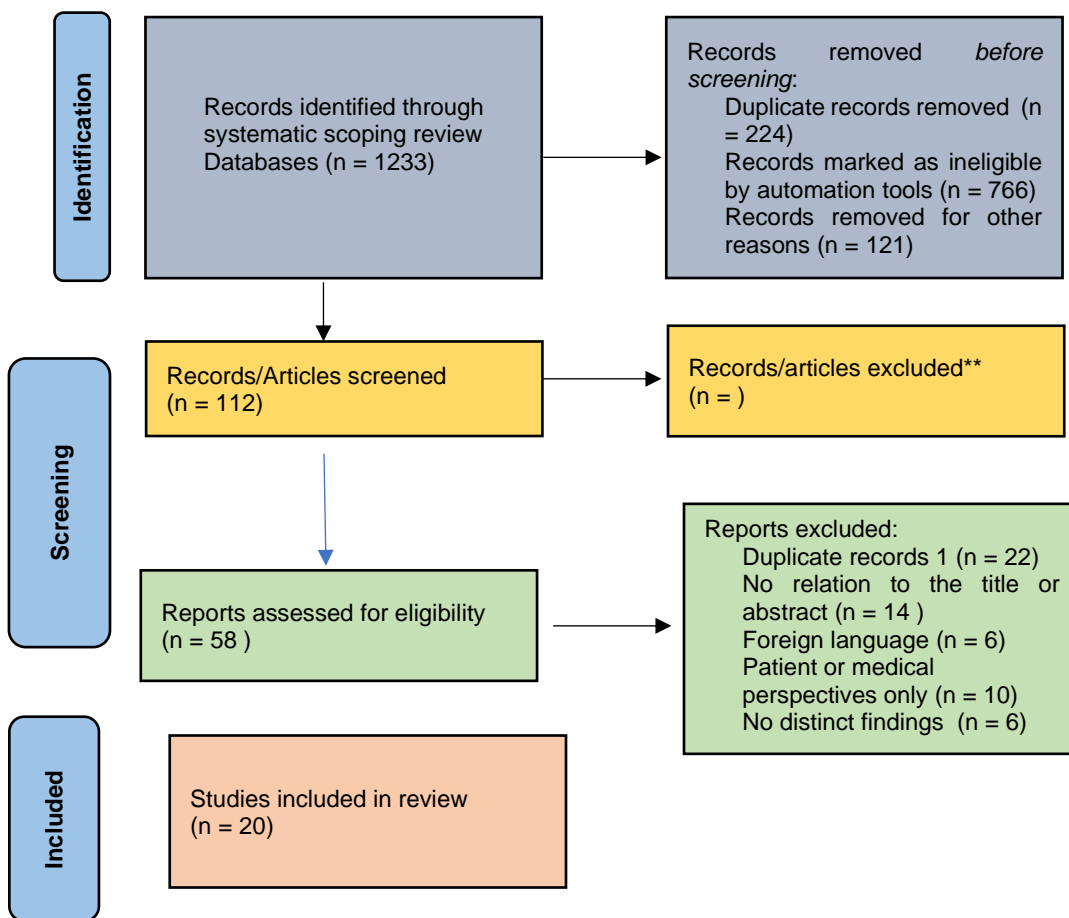


Figure 4-5: Identification of studies for the systematic scoping review

Source: Compilation by author

The scoping review approach allows researchers to understand the extent, range and nature of the existing literature, providing a foundation for future research and evidence-based decision-making. The process of conducting a scoping literature review typically involves several key steps.

First, the research questions and inclusion/exclusion criteria are defined to guide the search and selection of relevant studies. The next step is to conduct a comprehensive search across various databases, grey literature sources, and reference lists of relevant articles to identify relevant studies. The identified studies are then screened based on predetermined criteria, such as relevance to the research questions and the inclusion of specific study designs.

After the screening process, data extraction is performed to gather relevant information from the selected studies. This may include details about the study design, sample characteristics, key findings, and gaps in the literature. The extracted data are then summarised and analysed to identify common themes, patterns, or research gaps. The findings of the scoping review are typically presented in a narrative format, supplemented with tables, charts, or visual representations to enhance understanding. A scoping literature review differs from a systematic literature review in that it aims to provide a broader overview of the research landscape rather than a comprehensive synthesis of the evidence. It is particularly useful in emerging or complex research areas where the scope and boundaries of the topic may not be well-defined. This is then followed by a mixed method approach to answer the empirical research questions which are used in order to effectively achieve the theoretical and empirical objectives.

**Table 4-1: Three primary research designs of the mixed method approach**

a. <b>Convergent Design:</b> In this design, both qualitative and quantitative data are collected simultaneously, analysed independently, and then compared to see if they converge (similar findings) or diverge (different findings). Convergent designs are particularly useful when researchers want to validate qualitative findings with quantitative data, or vice versa.
b. <b>Sequential Design:</b> In this design, one type of data is collected and analysed first, followed by the collection and analysis of the other type of data. The sequence can be either quantitative to qualitative; or qualitative to quantitative. Sequential designs are helpful when one set of data provides context or informs the development of the subsequent data collection.

c. **Embedded Design:** In this design, one form of data is given priority, and the other form of data is embedded within the primary data. For example, a quantitative survey may include open-ended qualitative questions, or a qualitative study may be enriched by integrating quantitative data for context.

Source: Creswell (2018)

#### 4.4.6 Qualitative study design

In its broadest meaning, a qualitative study design refers to unstructured research that analytically strives to offer unique insights and provide direction for future research (Stebbins, 2001). Qualitative studies, according to Kumar (2005) and de Vos *et al.* (2011), investigate, observe, and characterise the nature of a certain event, topic, or phenomenon. Furthermore, according to Bricki and Green (2002), qualitative investigations are especially meant to examine social interaction, in which individuals' experiences, understandings, and views about a particular topic are elicited (Quinlan *et al.*, 2015).

##### 4.4.6.1 Explanatory factor analysis

**Table 4-2: Key steps involved in performing Explanatory Factor Analysis**

<b>1. Data Collection and Preprocessing:</b>	Gather a dataset containing multiple observed variables, usually represented in a data matrix with rows corresponding to individual cases (e.g., respondents, subjects) and columns corresponding to the measured variables. It is essential to ensure that the data are appropriate for EFA. Common requirements include a sufficiently large sample size, continuous or ordinal data, and an adequate correlation among variables.
<b>2. Correlation Matrix:</b>	Calculate the correlation matrix based on the collected data. The correlation matrix provides a measure of the relationships between each pair of variables. It is a square matrix where each cell represents the correlation coefficient between two variables.
<b>3. Factor Extraction:</b>	The factor extraction step aims to identify the underlying factors that explain the variance in the observed variables. There are several methods available for factor extraction, such as Principal Component Analysis (PCA) and Principal Axis Factoring (PAF). PCA is a widely used method in EFA, although it is technically a different technique used for dimensionality reduction. It extracts factors that account for the maximum variance in the data. On the other hand, PAF focuses on identifying common variance among variables and is more aligned with the goals of EFA.
<b>4. Factor Rotation:</b>	Factor rotation is an optional step that aims to improve the interpretability of the extracted factors. The goal is to achieve a simple and clear factor structure by minimizing the number of variables with high loadings on each factor. Orthogonal rotation methods, such as Varimax, assume that factors are uncorrelated with each other. On the other hand, oblique rotation methods, like Promax, allow factors to be correlated.
<b>5. Factor Loading Interpretation:</b>	Factor loadings represent the strength of the relationship between each observed variable and the underlying factors. They indicate the degree to which each variable is influenced by a particular factor. Researchers interpret the magnitude and pattern of factor loadings to label and understand the nature of each factor.
<b>6. Factor Selection:</b>	Researchers decide on the number of factors to retain based on statistical criteria, such as the eigenvalue (Kaiser criterion) or scree plot, as well as theoretical considerations and interpretability.
<b>7. Factor Scores:</b>	Once the factor structure is determined, factor scores can be computed for each individual. These scores represent the individual's position on each factor and can be used in subsequent analyses.
<b>8. Model Evaluation:</b>	The EFA model's goodness-of-fit is evaluated using various fit indices, such as the goodness-of-fit index (GFI), root mean square error of approximation (RMSEA), and comparative fit index (CFI).

Source: Compilation by author

#### **4.4.6.2 Exploratory factor analysis (EFA)**

The study employs thematic analysis as qualitative analysis, which will be used to analyse the data gathered from semi-structured interviews with key stakeholders. Thematic analysis is a flexible qualitative research technique that may be used in a range of epistemologies and research objectives as it offers a versatile method that enables the discovery, evaluation, arrangement, description, and reporting of themes within a set of data (Braun & Clarke, 2006). This approach offers a rich and thorough overview of the data, making it appropriate for several kinds of research. A more thorough and accurate study is ensured by the integration of several techniques, including participation and observation, documentation analysis, and interviews. People are the finest sources of data for study including opinions, attitudes, values or aspirations, according to Sproull (1995). However, due to the respondents' possible dishonesty, omission of facts, incorrect memory, lack of information, and preconceived notions, interviews may be prejudiced or misleading. Therefore, cross-referencing data with secondary sources and maintaining stable interview conditions are essential to avoid these problems.

Sutton and Austin (2015) posit the view that the interview method generates a diverse data set in a less formal setting, enabling a careful investigation of participants' experiences, feelings, and opinions. This method allows for the examination of data over multiple time periods and across various cross-sectional units in different regions and provinces in South Africa. Therefore, the study aims to provide a comprehensive qualitative understanding that complements the quantitative analysis by identifying common themes and patterns. Additionally, the integration of quantitative and qualitative approaches will provide a holistic perspective on the research question, enriching the overall findings.

#### **4.4.6.3 Triangulation and integration**

The idea of triangulation is the use of many research techniques in a single empirical inquiry to learn more about a topic. This strategy frequently integrates, combines and mixes techniques, replacing them with the idea of triangulation. The study employs the triangulation approach since it combines data from both the qualitative and quantitative approaches to fully depict and understand the impact of graduate labour immobility in South Africa. Research triangulation is essential because it enables researchers to compare their findings to those of others to validate

their theories. This technique enhances the credibility of study findings by evaluating evidence, understanding multiple data sources and providing comprehensive responses to research questions. Researchers can better comprehend their issues and reduce bias by utilising diverse methodologies, ideas and data sets. Carter *et al.* (2014) contend that triangulation makes use of several techniques or data sources to create a thorough knowledge of occurrences. According to Bhandari (2022), the four primary forms of triangulation are methodological triangulation, investigator triangulation, theory triangulation, and data triangulation. While investigator triangulation entails a number of researchers, data triangulation uses information from many places, times and persons. Whereas the methodological triangulation uses many approaches to address the same subject, theory triangulation makes use of a variety of viewpoints. repetition This study utilises methodological triangulation, which involves using multiple methods to study the phenomenon, providing confirmation of findings, comprehensive data, increased validity and enhanced understanding. A blended qualitative and quantitative approach was employed. The qualitative approach generates hypotheses and examines quantitative data without collecting any numbers or making any changes. This approach focusses on the graduate's perspectives since it provides a deeper understanding than qualitative data alone.

## **4.5 SAMPLING STRATEGY**

### **4.5.1 Target population**

The target population in a mixed-method approach can be defined based on various factors. Firstly, in the quantitative component, the target population may be broader, aiming for statistical generalisability. Researchers use sampling techniques to select a representative sample that mirrors the characteristics of the larger population of interest (Creswell & Plano Clark, 2018). The sample size for the quantitative component is typically larger to ensure sufficient statistical power and precision for drawing conclusions and making generalisations. Secondly, for the qualitative component, researchers often select a purposive or purposeful sample, which involves deliberately selecting participants who can provide rich and diverse perspectives related to the research question (Creswell & Plano Clark, 2018). Qualitative research aims for in-depth understanding and typically involves a smaller sample size, allowing researchers to gather detailed insights and explore the complexity of participants' experiences and perspectives.

Lastly, the choice of target population should align with the research objectives and the specific research question. Researchers should consider the characteristics, demographics, or relevant

attributes of the population that will provide meaningful insights and enable generalisability, where applicable. It is important to clearly define and justify the target population to ensure the validity and reliability of the research findings. The target population in this study comprises all graduates that are currently employed in permanent positions in both the public and private sector as well as unemployed graduates. As the alumni database of universities is not always up to date, it is imperative to identify potential participants from recent graduates.

#### **4.5.2 Sampling frame**

In a mixed-method approach, the sampling frame refers to the list or source from which the participants or units of analysis are selected for the study. The sampling frame plays a crucial role in ensuring the representativeness and generalisability of the findings in both the qualitative and quantitative components of the research. In the quantitative component, the sampling frame is essential for selecting a representative sample from the target population of interest. The sampling frame should encompass all individuals or units that make up the larger population to ensure unbiased selection (Creswell & Plano Clark, 2018). The sampling frame for quantitative research can be derived from various sources, such as population registries, organisational databases, or publicly available records, depending on the research context and population being studied. It is important to note that the sampling frame should be carefully constructed to ensure that it adequately represents the target population and reduces potential biases. The use of appropriate sampling techniques, such as random sampling or stratified sampling, can help ensure the selection of a representative sample.

The participants were recruited on a voluntary basis. The empirical data were primarily collected through a survey-based research design to elicit information from a broad number of individuals who were willing and able to communicate by means of a questionnaire and interview focussed groups. The sampling frame for this study refers to graduates from any Higher education institution (HEI), further studies and training. The target population were all graduates currently employed in permanent positions in both public and private sectors. Participants were interviewed until data saturation was reached in the second phase of the data collection; the interviews.

Therefore, for the qualitative component, the sampling frame may involve identifying and selecting specific individuals or groups who possess the characteristics or experiences relevant to the research question (Creswell & Plano Clark, 2018). The sampling frame for qualitative research

can include various sources, such as organisations, communities, or professional networks, from which potential participants can be identified.

#### 4.5.3 Preliminary analysis and scale reliabilities

Prior to analysis, patterns of missing values were examined for the quantitative data. Amongst graduates from any South African HEI, university or college, the study received a total of 241 respondents. Of those respondents, six questionnaires were excluded due to missing values on more than 90% of responses, leaving 235 respondents for further analysis (Survey, 2023).

#### 4.5.4 Sampling technique

##### Table 4-3: Data pre-processing (Quantitative analysis outputs)

**Phase 1: Data cleaning** The author describes any steps taken in order to clean and prepare the quantitative data analysis by means of handling missing values or outliers.

**Phase 2: Data transformation** After the data cleaning process, the author explains any transformations applied to the data set, such as normalisation or log transformations.

**Phase 3: Data descriptives** Lastly, the author presents a detailed summary of statistics which may include the mean, median or standard deviation for key variables.

Source: Compilation by author

#### 4.5.5 Sample size

In a mixed-method approach that combines a questionnaire and face-to-face interviews, researchers utilise both quantitative and qualitative methods to collect data and gain a comprehensive understanding of the research topic. The questionnaire, as a quantitative data collection tool, allows for standardised data collection from a larger sample of participants. It typically consists of closed-ended questions that participants can respond to by selecting predetermined response options (Creswell & Plano Clark, 2018). Questionnaires enable researchers to collect data efficiently and systematically, facilitating statistical analyses to identify patterns, associations or trends in the data.

Face-to-face interviews, on the other hand, provide an opportunity for qualitative data collection, allowing for more detailed and nuanced exploration of participants' perspectives, experiences, and emotions. Interviews can be conducted using a structured, semi-structured, or unstructured format, depending on the research objectives and the level of flexibility desired (Creswell & Plano Clark, 2018). Face-to-face interviews enable researchers to probe more deeply into participants' responses, clarify ambiguous points, and capture rich contextual information that may not be possible through a questionnaire alone. The combination of a questionnaire and face-to-face interviews in a mixed-method approach allows researchers to triangulate findings, validate results and gain a more comprehensive understanding of the research topic. The quantitative data from the questionnaire can provide an overview of trends or patterns, while the qualitative data from interviews can shed light on individual experiences, perspectives and contextual factors that influence the research phenomenon.

Participants' data collection will be conducted by means of phase one, which consists of a questionnaire designed by the author; and phase two, which is the interview process. To gather the most accurate and authentic data, interviews were conducted with those who elected to continue with the study from the questionnaire and were held with participants either electronically or face-to-face. The interviews were transcribed by a professional transcriber for further analysis. Qualitative data were coded and analysed using Atlas.ti Version 23 for Windows. Additional focus groups were conducted until data saturation was reached. The validity and reliability from the data collection by means of the questionnaire was examined. Before the questionnaire was circulated for the final test, a pilot analysis was also conducted.

The survey with a questionnaire was carried out in order to gather the data required. Given that previous labour immobility metrics have been weak, reducing uncertainty and reliability (Allan *et al.*, 2017), a recently validated Occupational Composition Scale (OCS) was used in the proposed analysis to assess the current standings of labour immobility and its prospects in meeting the future skills and knowledge needs of the South African economy (Clark, 2013).

#### **4.6 DATA COLLECTION METHODS**

The specific technique in which the data were obtained from the sample elements is referred to as data collecting processes. In quantitative investigations, these methods are either observational or survey-based (Blumberg *et al.*, 2008). For this aspect, observation approaches require gathering data by witnessing certain occurrences and recording them as they occur

(Zikmund & Babin, 2013:237). It refers to a systematic strategy that uses non-verbal responses to gain understanding into specific occurrences (Schmuck, 1997). Survey approaches, on the other hand, emphasise data gathering through the use of questionnaires, with replies recorded on a specially designed measuring instrument. These instruments can be distributed via traditional mail or online, as well as via telephone or face-to-face interviews (Cant *et al.*, 2008).

For the purpose of this study and in order to achieve the empirical objectives as identified in Chapter 1, Section 1.3, the study made use of a self-administered questionnaire which was designed by the author to collect primary quantitative data from various participants. This questionnaire was informed by the literature review (Chapters 2 and 3) and empirical reviews (Chapters 2 and 3) together with several Likert scales. Thereafter, the study made use of semi-structured face-to-face, online survey interviews to collect data from the participants. Section 4.6.1 provides an in-depth discussion on the particulars of the measuring instruments applied to the study design.

#### **4.6.1 Questionnaire design**

General guidelines for questionnaire designs state that a well-designed questionnaire is not only clear to the reader but also concise (Salkind, 2012) and easy to complete, requiring no more than 20 minutes of the participant's time (McDaniel & Gates, 2013). According to Dickinger (as referenced by Mncayi, (2020:216)), properly designing and implementing the survey instrument will significantly help to address the research challenge, so it stands to reason that well-structured surveys would follow a logical progression, eliminating lengthy and perplexing questions while also making sure that questions are brief and to the point (Lang, 2017).

The questionnaire was carefully created with the respondents in mind, making sure that the questions it asked were not too complex but still helped to address the research topic. To ensure that there were no technical or usability flaws, the questionnaire underwent peer reviews. The survey's pilot testing, described in more detail in Section 5.6.4, also revealed that it took less time to complete the questionnaire than the allotted 25 minutes — less than 15 minutes, in fact. In a mixed method study, however, researchers use a combination of data collection methods. For quantitative data, they might use surveys, experiments, observations, or secondary data analysis. Qualitative data, on the other hand, are often gathered through interviews, focus groups, observations, or content analysis of texts and documents. Taking these factors into account, the questionnaire utilised in this study was designed to ensure clarity and trustworthy data collection

. The questions included were chosen with care, allowing for the inclusion of clear and comprehensible statements. The measuring equipment was built through a thorough peer review procedure that assured sophistication and application.

In this study a descriptive, cross-sectional research method was utilised, while a blend of purposive and suitability sampling techniques was used to select the sample participants. The sample size was randomised and the requirement for selection was any participant who held a graduate degree or qualification in South Africa. Data were collected through the use of self-structured questionnaires which were administered through the author and supervisors, along with three additional trained field experts. A total of 241 questionnaires were returned of which 235 were deemed usable and six not usable since the participants did not meet the minimum requirement of being a graduate or holding a qualification status. The sample was unevenly composed out of a total number of 201 employed participants and a total number of 34 unemployed participants. The statistical techniques consisted of a data analysis which included the use of frequency distributions, descriptive analysis, cross tabulations, MANOVA analysis, regression and a principal components analysis.

**Table 4-4: Statistical techniques**

<b><i>TECHNIQUE</i></b>	<b><i>DESCRIPTION</i></b>
<b><i>Frequency Distributions</i></b>	A summary table called a frequency distribution is used to arrange and present data. It does this by grouping values into intervals or groups and indicating the frequency or count of observations that fall into each group. It helps to spot patterns or trends by giving a clear picture of the data distribution (Woya, 2019).
<b><i>Descriptive Statistics</i></b>	In order to provide information about the central tendencies and variability of a dataset in a clear and succinct manner, descriptive statistics employ metrics such as mean, median, and standard deviation (Mishra <i>et al.</i> , 2019).
<b><i>Cross-tabulation Statistics</i></b>	By showing the frequencies and relationships between two or more categorical variables, cross-tabulation — also referred to as contingency table analysis — examines correlations between the

	variables and aids in the discovery of patterns, dependencies, or discrepancies in the data (Wang & Cheng, 2020).
<b>MANOVA and Regression Analysis</b>	Regression analysis investigates the relationship between a dependent variable and one or more independent variables. It helps us to understand the causal relationships and predictive modelling since it helps quantify the intensity and direction of these associations (Othman <i>et al.</i> , 2020).
<b>Principal Component Analysis (PCA)</b>	Principal components analysis (PCA) is a multivariate statistical method that decreases the dimensionality of data by converting correlated factors into a smaller set of uncorrelated variables. It makes complicated datasets easier to understand and highlights hidden patterns or structures (Labrín & Urdinez, 2020).

Source: Compilation by author

The questionnaire together with the included cover letter is presented in Appendix A.

**4.6.1.1 Survey method**

There are various types of survey methods the researcher could have used in the study. According to Glasow (2005), the survey method is primarily employed to measure certain characteristics of a population under research. Glasow (2005) therefore, defines a survey as the instrument used to conduct a survey investigation. Questionnaires are sometimes referred to as survey interviews due to the similarity of their question-and-answer format (Blackstone, 2012). In addition, according to Babbie (2007), a questionnaire is a document that comprises a list of questions and other pertinent information and is aimed to elicit information from the respondent. Questionnaires often include research-related questions and statements (Delpont & Roestenburg, 2011).

Several types of questionnaires exist, namely: mailed questionnaires, telephonic questionnaires, questionnaires delivered by hand, self-administered questionnaires, and group administered questionnaires. These types of questionnaires are discussed in the section that follows.

**Table 4-5: Different types of questionnaires**

<b>Questionnaire</b>	<b>Brief description</b>
<b>Self-administered</b>	With the advent of the internet, online surveys and questionnaires have become increasingly popular. Respondents complete these questionnaires through web-based forms or survey platforms, providing ease of distribution and data collection (Cant <i>et al.</i> , 2008).
<b>Group administered</b>	A questionnaire administered by the researcher to a specific group of participants to complete, each of which completes their own and afterwards discuss the questionnaire (Quinlan, 2011; Delpport & Roestenburg, 2011).
<b>Hand delivered</b>	These are the traditional, printed questionnaires that respondents fill out by hand. They can be distributed in person, through the mail, or left for respondents to complete on their own (Delpport & Roestenburg, 2011).
<b>Telephonic</b>	A telephonic interview is one in which the interviewer calls the interviewee and conducts the interview over the phone while recording the conversation (Maree & Pietersen, 2007).
<b>E-mail</b>	Questionnaires received through email are also referred to as postal questionnaires (Quinlan, 2011). The participant is responsible for filling out the questionnaire and returning it to the researcher after completion (Delpport & Roestenburg, 2011).

Source: Adapted from Lawrenson, 2017.

#### **4.6.1.2 Observation method**

Qualitative observation is a popular research method in the social sciences, anthropology, education, and other domains. It entails systematically acquiring knowledge about people, behaviours, or occurrences by direct observation and qualitative data capture. Unlike quantitative observation, which is concerned with numerical data, qualitative observation seeks to capture the richness and complexities of human experiences, behaviours, and social settings (Quinlan, 2011). According to Creswell (2013), the researcher should begin the observation process as broadly as feasible, followed by a focus on the research questions. According to Struwig and Stead (2001),

the fundamental advantage of the observational data collection method is that the researcher does not have to rely on the individual's willingness to engage in the research study. Furthermore, the researcher does not need to be concerned about the individual's ability to account accurately for the data collection process (Struwig & Stead, 2001).

#### 4.6.1.3 Interview method

Interviews methods are used in different forms such as direct, interactive and structured communication between a researcher or interviewer and participants. Interviews can be formal, semi-structured, or unstructured, and can take place in person, over the phone, or by video conferencing. Interviews are a versatile and commonly utilised data collection strategy in qualitative and mixed-method research because they allow researchers to gain useful information, insights, and personal perspectives on research issues (Tracy, 2013; Gill *et al.*, 2008; Struwig & Stead, 2001).

Furthermore, there are two types of interview questions. Open-ended questions are defined as requiring participants to respond to a question in order to express a certain viewpoint without the influence of the researcher or other participants (Reja *et al.*, 2003). This adds value to the study due to the participant providing a response that is spontaneous and original and this is an opportunity for the researcher to interact and identify possible themes from the interview questions (Mack *et al.*, 2005).

The second type of interview question are close-ended questions, which are defined as questions limiting the participant to answer a certain question in order to establish alternative responses (Mack *et al.*, 2005; Quinlan, 2011). v Therefore, a closed-ended question requires a definite set response, such as 'yes', 'no', 'don't know', or 'not applicable' (Quinlan, 2011).

**Table 4-6: Different interview styles**

<i>Interview style</i>	<i>Brief description on interview style</i>
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<b>Structured interview</b>	A systematic and standardised interviewing method in which the interviewer asks a predetermined set of questions to all participants. This approach allows for consistent data collection and facilitates quantitative analysis while ensuring uniformity across interviews (Weller, 1998).
<b>Semi-structured interview</b>	A flexible and open-ended interviewing method that combines a predetermined set of questions with room for respondents to provide detailed and personalised responses. This approach allows for in-depth exploration of topics while maintaining some standardisation in data collection (Kallio <i>et al.</i> , 2016; Schmidt, 2004)
<b>Unstructured interview</b>	A free-flowing and open-ended method of gathering qualitative data, where there is no predetermined set of questions. Instead, the conversation is driven by the respondent, allowing for rich, spontaneous narratives and exploration of topics without constraints (Brinkmann, 2014; Campion <i>et al.</i> , 1988).
<b>Focus group</b>	A qualitative research method in which a small group of participants engage in structured discussions led by a moderator. These discussions explore specific topics, allowing for in-depth insights, diverse perspectives, and group dynamics to emerge (Dilshad & Latif, 2013).

Source: Compilation by author

**4.6.1.4 The data collection method applied in this study**

In this study, semi-structured questionnaires were implemented in the quantitative phase, to obtain data relating to the individual’s graduate labour immobility perception. The qualitative portion of this study constituted semi-structured interviews as a data collection method relating to the various types of labour immobility, with sub-section questions pertaining to geographical (im)mobility, occupational (im)mobility and lastly skills (im)mobility patterns and behaviour in the labour market system.

#### 4.6.2 Questionnaire format

The questionnaire's formulation was heavily influenced by the study's empirical goals. The goal was to ensure that the questions themselves were properly written and that they made logical sense to avoid confusion. Since this was an online survey rather than a real one with enumerators, the inclusion of closed-ended questions made it simpler for the respondents. The questionnaire was pre-tested in order to check for its face and content validity by allowing six pertinent field researchers to scrutinise the questionnaire to identify any potential problematic areas or likely problems. The questionnaire was refined, based on the pre-test results. The refined questionnaire is presented below.

**Table 4-7 : Questionnaire layout and sub-sections**

<b>Sections</b>	<b>Questions based on:</b>
<b>Section A: Demographics</b>	Age, race, languages, sex, income, dependents, marital status, living status
<b>Section B: Discouraged graduate (im)mobility &amp; perceptions of graduates</b>	Likert chart questions Multiple choice
<b>Section C: Education</b>	Qualification Field of study
<b>Section D: Employment information</b>	Employment basis Sector / industry employed Current job level or position of participant Experience Skills
<b>Section E: Unemployed participants</b>	How long have you been unemployed? Actively seeking employment opportunities Barriers to finding employment Studies advancement?
<b>Section F: Geographical location</b>	Geographical location of the participant, including questions related to province, relocation, travel and workplace.

Source: Constructed by author

## **4.7 PILOT TESTING OF QUESTIONNAIRE AND INTERVIEW SCHEDULE**

A pilot study, in accordance with Van Teijlingen and Hundley (2001), is a scaled-down replica of the major research study. Pilot testing is thus a pre-test of the research instrument, which includes questionnaires and interview schedules. Delpont and Roestenburg (2011:195) advocate for pilot testing rather than a small group of people reading through the research instruments looking for mistakes. Pilot testing's primary goal is to detect any errors in the research instrument (Burgess, 2001). Collins (2003) emphasised the importance of pre-testing the research instrument to confirm that the researcher obtains valid data, because participants often respond to research questions without fully comprehending what the question is asking of them.

Only once all of the recommendations have been implemented in the questionnaire should it be used for the entire sample (Delpont & Roestenburg, 2011). Both quantitative and qualitative research investigations might benefit from pilot testing (Van Teijlingen & Hundley, 2001).

### **4.7.1 Pilot testing of the questionnaire**

A pilot test was conducted once the questionnaire for the research study was prepared. Convenience sampling was used to choose six field experts in different disciplines from the primary study sample to interrogate the questionnaire and provide feedback as to how the questionnaire could be improved or some sections better phrased and explained. Participants from the pilot study were not included in the main sample. The participants were a cross-section of the target demographic (Nell, 2005).

The study required 20-25 minutes of the participants' time to complete. Furthermore, those participants were asked to add their suggestions and changes to improve the overall quality of the questionnaire. The changes were approved and applied by the researcher to ensure that the participants could easily comprehend what they were being asked and able to complete all sections of the questionnaire. Furthermore, the researcher ensured that the layout of the questionnaire was well structured and included all the suggestions of the pre-test participants. After implementing the changes suggested by the pilot participants, the structure of the questionnaire was improved with greater clarity and flow. As a result of the changes, the participants could complete the questionnaire in 10-15 minutes.

#### **4.7.2 Pilot testing of the interviews**

A pilot test was undertaken once the interview schedule for the research study was created. The pilot test sample was drawn from the same pool as the major study. Using convenience sampling, the sample consisted of five participants from various fields of study and occupations. The participants were a sample of the intended population (Parasuraman, 1991). The qualitative portion of the study which comprised the interview schedule, followed the same procedure as the quantitative study, in terms of pilot testing, The pilot research participants were eliminated from the main sample. The interview schedule was employed for the primary research study after all revisions were made.

#### **4.7.3 Ethical considerations**

The research study adhered to protecting the identities and interests of all participants while conforming to the ethical writing standards of academic research. All information provided by each participant was treated with the utmost respect and confidentiality. Participation in this study was voluntary and informed consent for all stages of the study was sought. Participants were free to remove themselves from the study at any time without fear or penalty. Ethical clearance was sought from the Scientific Committee and Research Ethics Committee from the North-West University and was approved with the ethical clearance number (NWU-01841-22-A4). The survey questionnaire used for the data collection process was presented to the university's ethics committee before any questionnaire process began. Once approved, the ethics clearance number was received and included on the questionnaire. Access to the alumni database and the gate keeper of the university in question was only requested from the university's institutional office where necessary. For ethical reasons, the study does not disclose the name of the university from which graduates were sourced.

### **4.8 DATA ANALYSIS**

According to Swanepoel *et al.* (2006) and Zikmund *et al.* (2013), data analysis is the use of analysis techniques to comprehend the acquired data as well as the application of statistical measurements to gain information and comprehend the data. The characteristics specified in the research design and the type of data acquired indicate the appropriate diagnostic measurement for statistical data analysis (Zikmund *et al.*, 2013).

IBM Statistical Package for Social Sciences (SPSS) 23 was used to analyse the data during the study's quantitative phase. A computer software called SPSS is used to analyse statistics in collected data sets. A computer tool called Atlas.ti is used in research to analyse qualitative data sets thematically and this was used in this study to code and analyse the data during the qualitative phase.

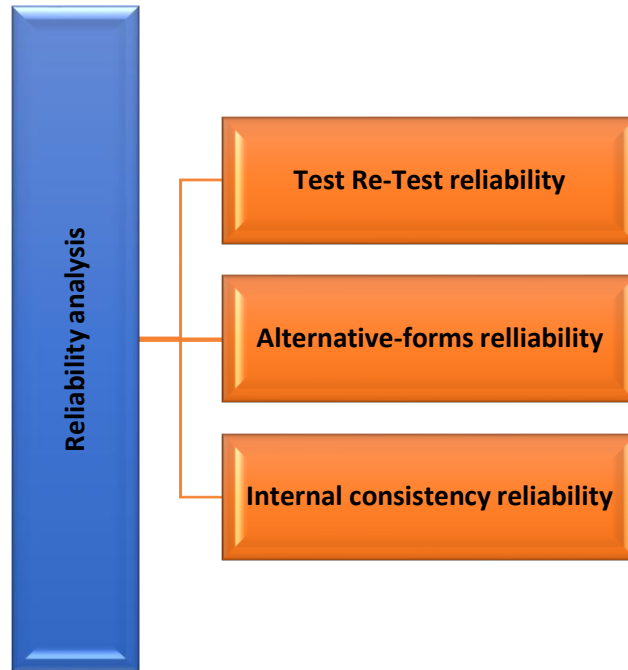
Reliability analysis, validity analysis and coding analysis are the statistical data analysis techniques that were used on the data sets from the study's quantitative and qualitative stages. Below is a detailed discussion of the statistical data analysis measures named above.

#### **4.8.1 Reliability analysis**

According to Johnson and Williams (2015), reliability refers to the consistency and stability of a measurement tool or instrument. In the context of survey research, it means that if the same survey is administered to the same group of respondents under similar conditions, it should yield consistent results. There are various methods to assess reliability, such as test-retest reliability (administering the survey twice to the same participants and checking for consistent responses); internal consistency (measuring how closely related the items in a scale are); and inter-rater reliability, if the survey involves multiple rates or observers (Golafshani, 2003; Maree & Pietersen, 2007).

In qualitative research, the soundness, consistency and repeatability of participants' responses are factors that determine reliability (Brink, 1993:35). The uniformity of the methodology applied by many researchers and study projects is another aspect of qualitative dependability (Creswell, 2014). According to Golafshani (2003), trustworthiness should be examined in order to guarantee dependability in qualitative research.

Malhotra (2010:317) observes that reliability analysis consists of multiple metrics, including internal consistency, alternative forms and test-retest reliability. Figure 4-6 shows these methods, covered in more depth in Table 4-5.



**Figure 4-6: Reliability analysis approach**

Source: Adapted from Malhotra (2010)

**Table 4-8: Reliability analysis methods**

METHOD	DESCRIPTION
<b>Test re-test reliability</b>	By giving the same test or questionnaire to the same group of participants again, test-retest reliability assesses the measurement's consistency and the correlation between the scores received on the two occasions is calculated. A strong correlation suggests that the measurement is stable over time and shows good test-retest reliability (McDaniel & Gates, 2001; Pietersen & Maree, 2007:215; Malhotra, 2010).
<b>Alternative-forms reliability</b>	Using two distinct versions of a test or questionnaire intended to evaluate the same construct, alternative-forms reliability compares the consistency of a measurement. Researchers can find out if the scores from the two versions are substantially connected by giving these two forms to the same group of individuals. This technique aids in ensuring that the measurement is

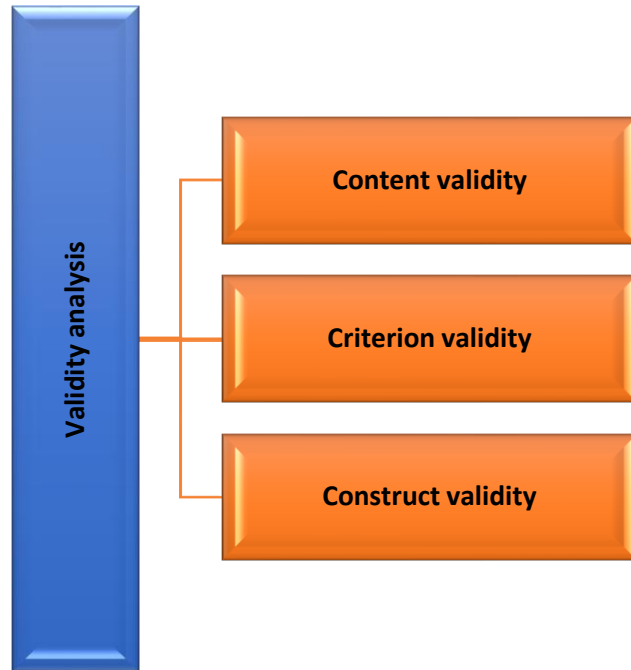
	independent of the particular items or questions employed (McDaniel & Gates, 2001; Malhotra, 2010).
<b>Internal consistency reliability</b>	According to McDaniel and Gates (2001); Pietersen and Maree (2007); and Malhotra (2010), the degree to which the items in a given test or questionnaire measure the same underlying construct is known as internal consistency reliability. Internal consistency is commonly measured using split-half reliability and Cronbach's alpha. A high level of internal consistency suggests that the items measure the same construct and are closely related. A test's consistency among its items indicates that the measurement instrument is trustworthy and that the test items are measuring the same thing.

Source: Compilation by author

**4.8.2 Validity analysis**

According to Mellinger and Hanson (2020), validity refers to the extent to which a measurement tool accurately measures what it is intended to measure. In survey research, this means that the survey questions should accurately capture the constructs or variables the researcher is trying to study. Different types of validity include content validity (ensuring the survey covers all relevant aspects of the construct); construct validity (how well the survey measures the theoretical construct it is supposed to measure); criterion validity (how well the survey correlates with an established criterion); and face validity (whether the survey appears to measure what it is intended to).

In qualitative research, validity is associated with the precision and reliability of the findings (Brink, 1993). According to Creswell (2014), the researcher should use particular techniques, including precision and trustworthiness, to verify the reliable nature of the data. There are several different kinds of validity analysis techniques, such as construct, criteria and content validity. Figure 4-7 illustrates these various strategies, which are covered in more depth in Table 4-6.



**Figure 4-7: Validity analysis approach**

Source: Adapted from Malhotra (2010)

**Table 4-9: Validity analysis methods**

<b><i>METHOD</i></b>	<b><i>BRIEF DESCRIPTION</i></b>
<b><i>Content validity</i></b>	The degree to which a measurement tool (such as a questionnaire) fully captures the scope of the concept it is designed to test is known as content validity. Through the use of expert opinions and qualitative analysis, it makes sure that the items are pertinent and reflective of the construct (Iacobucci & Churchill, 2010:256; Malhotra, 2010:320).
<b><i>Criterion validity</i></b>	The degree to which a measurement tool accurately predicts or correlates with a certain criterion or external variable is known as its criterion validity. To make sure the instrument measures what it is supposed to measure precisely in reference to a recognised standard, there are two types: predictive (comparison with a criterion measured in

	the future); and concurrent (compared with a criterion measured simultaneously).
<b>Construct validity</b>	The assessment of construct validity determines if a measurement tool accurately captures the fundamental theoretical construct that it is intended to test. In order to show that the instrument can accurately capture the desired psychological or theoretical notion, this strategy frequently entails verifying that the instrument's scores match theoretical assumptions and can distinguish across similar constructs.

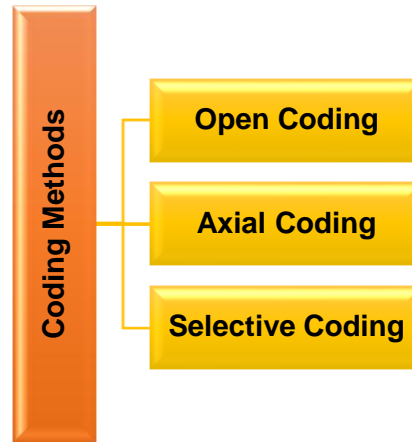
Source: Compilation by author

**4.8.3 Coding analysis**

Coding analysis is the systematic and structured process of categorising, labelling and organising qualitative data from surveys, interviews and other sources in a mixed-method approach study. To find patterns, themes, and significant information in textual or visual data, researchers employ coding. Qualitative data can be converted through this coding process into quantitative, comprehensible and manageable data (Randolph, 2009; Zikmund *et al.*, 2013).

Frequently, codes are organised into themes or groups, which can subsequently be examined in conjunction with quantitative data to offer a thorough grasp of the research study. By providing a more comprehensive understanding of the phenomenon being studied and enhancing the research findings, the integration of qualitative coding and quantitative analysis advances the study (Zikmund *et al.*, 2013). Nieuwenhuis (2007) defines coding in qualitative research as reviewing every line of the transcribed interview and then segmenting it into distinct, meaningful parts. Accordingly, coding is the process of designating distinct symbols, emotive language, or exclusive classification names to designate the recognised data segments (Nieuwenhuis, 2007).

According to Creswell (2008), codes can be developed based on theory or at the whim of the researcher. There are various techniques for coding analysis, including axial coding, selective coding, and open coding. Figure 4-8 illustrates these code styles, which are covered in Table 4-10.



**Figure 4-8: Coding analysis approach**

Source: Adapted from Schurink *et al.* (2011)

**Table 4-10: Coding methods**

<b><i>Method</i></b>	<b><i>Description</i></b>
<b><i>Open coding</i></b>	In the first, exploratory stages of qualitative data analysis, known as open coding, researchers look at unprocessed data without applying any preconceived notions or categories. In the process, researchers find themes, patterns, and new concepts by breaking down the data into discrete, meaningful pieces (codes). It establishes the framework for additional research and contributes to the creation of a thorough comprehension of the facts (Santos, 2020).
<b><i>Axial coding</i></b>	The intermediate phase of qualitative analysis, known as axial coding, is when researchers try to establish links between codes that were created during open coding. Scholars discern connections, tiers, and associations between codes in order to construct a more organised framework or theory. This procedure aids in data organisation and the investigation of the connections between various dataset pieces (Mbuh <i>et al.</i> , 2019; Purohit <i>et al.</i> , 2021).
<b><i>Selective coding</i></b>	By concentrating on the primary categories or themes that are most noticeable and pertinent to the research issue, selective coding (the last stage of coding), seeks to improve and solidify the developing theory or framework. The main

	<p>themes are chosen and developed by researchers, and data are continuously examined to validate, improve or clarify these essential ideas. A clear and cohesive narrative or hypothesis based on the qualitative data is produced by selective coding (Rahimi <i>et al.</i>, 2023; Taheri <i>et al.</i>, 2022).</p>
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Source: Compilation by author

#### 4.8.4 Combining quantitative and qualitative data analysis

Mixed analysis is the process of integrating quantitative and qualitative analysis (Onwuegbuzie & Combs, 2011). According to Onwuegbuzie and Combs (2011), mixed analysis is the integration of quantitative and qualitative research methodologies in a single context to synthesise the results of both approaches into coherent interpretation of the issue under investigation.

According to Heyvaert *et al.* (2013), there are two levels at which mixed methodologies research methodology can be used: the primary stage and the synthesis stage. Primary data collection is done by the researcher for both quantitative and qualitative portions, and the data are then combined into a single research study (Heyvaert *et al.*, 2013). Observations, questionnaires and interviews make up the various data segments that are collected (Heyvaert *et al.*, 2013). This synergistic approach is particularly valuable in fields like public health, education and social sciences, where mixed-method research can yield a more holistic view of the research problem. Researchers must carefully plan the integration of both data types, maintaining transparency and rigour throughout the process to ensure that the findings align and contribute to a richer understanding of the research question.

### 4.9 SYNOPSIS

In conclusion, a mixed method approach in research has emerged as a valuable and versatile strategy to investigate complex research questions by integrating both quantitative and qualitative methodologies. This approach typically encompasses the quantitative objective of designing and deploying a new questionnaire to collect structured data, coupled with the qualitative objective of creating interview questions and conducting interviews to gather in-depth insights. The significance of this methodology lies in its ability to yield a more comprehensive understanding of the research topic. Quantitative data gathered through questionnaires can provide valuable statistical insights and trends, while qualitative data from interviews add depth and context to

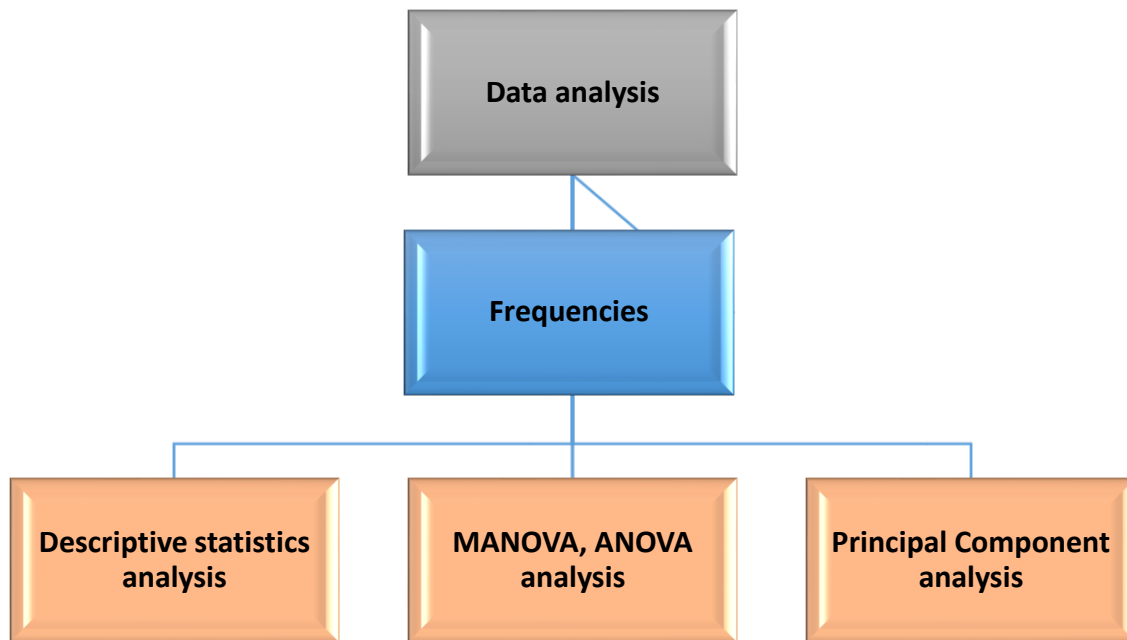
these statistics. The synergy between the two methodologies is crucial, as it allows researchers to triangulate and validate findings, enhancing the credibility and rigour of the study.

Furthermore, mixed method studies offer several advantages that contribute to their importance in the academic literature. By combining quantitative and qualitative approaches, researchers can explore the multifaceted nature of research questions, providing a more holistic view of the phenomena under investigation. This approach is particularly valuable in fields where understanding complex human behaviours, attitudes, and motivations is central, such as social sciences, psychology and education. It also allows researchers to address research questions from different angles, which can lead to more robust and nuanced findings, enhancing the depth of insights and the overall quality of research outcomes.

Incorporating both quantitative and qualitative elements, such as designing questionnaires and conducting interviews, also allows researchers to engage in methodological triangulation, which enhances the study's validity and reliability. This methodological diversity is significant because it contributes to the body of academic literature by offering a more holistic and nuanced perspective on research topics. Mixed method studies have the potential to bridge gaps between quantitative and qualitative research traditions, leading to a richer and more comprehensive understanding of complex phenomena. Consequently, this approach has become a valuable tool for researchers seeking to produce in-depth, well-rounded, and practically applicable insights, thus making significant contributions to the academic discourse in various fields.

## CHAPTER 5: EMPIRICAL ANALYSIS AND INTERPRETATION OF RESULTS ON THE ANTECEDENTS OF GRADUATE LABOUR IMMOBILITY

*“The lack of labour immobility may lead to structural unemployment (mismatches)” -  
EconomicsOnline*



**Figure 5-0: Framework chapter five**

### 5.1 INTRODUCTION

In the previous chapter the research methodology chosen and followed was explain. The main purpose of this data analysis chapter is to systematically examine and interpret the collected data to address the empirical objectives of the study. This chapter serves as the analytical core of a research study, where both quantitative and qualitative data are processed, summarized, and assessed for patterns, relationships, and insights. Through this analysis, the researcher aims to draw meaningful conclusions, uncover trends, themes, factor dimensions, and contribute to a deeper understanding of the analysing the antecedents of graduate labour immobility in South Africa. The statistical analyses included frequencies, percentages, reliability and validity measures as well as descriptive statistics using SPSS. Using these statistical techniques as explained in Section 4.8, this chapter aims to address the following empirical objectives as set out in Chapter 1 of the research study.

It is important to note that to construct the empirical study of this research, numerous contents of literature was studied. The literature (Chapter 2 to 3) provided background information for the study and was utilised as referential framework to compile questionnaires for both the quantitative and qualitative objectives (Annexure 1 & 2). The data were generated as a statistical analysis for the quantitative multivariate nature and the statistical analysis was conducted utilising IBM Statistical Package for Social Sciences (SPSS) Version 26. This chapter will consist of the quantitative empirical results discussion obtained from the questionnaire. Economic analysis methods and models applied, where in some instances the descriptive statistics, frequencies, and cross tabs relationship between variables are discussed. In addition, after the establishing the various dimensions of the factor analysis the study further placed its focus on the exploratory factor analysis with Principal Axis factoring and direct oblmin with Kaiser Normalization rotation method to analyse various questions within the questionnaire to find the most suitable analysis technique. In some instances, the study only made use of the principal component factoring which relied on the dimensions of the factor analysis outputs.

## **5.2 DATA ANALYSIS: FINDINGS OF THE MEASUREMENT INSTRUMENT- QUESTIONNAIRE**

In Chapter 4 the preliminary data analysis was explained in detail. The study had a total of 241 participants that completed the questionnaire, after the process of editing and examining, 6 questionnaires were excluded from the study as they had missing values, they selected on not to participate or did not hold any qualification. The final number of usable questionnaires was 235. After the completion of all missing values the data was tabulated and frequencies from respondents are represented in Table 5-1.

Quantitative data analysis techniques primarily derived descriptive statistics, exploratory factor analysis, reliability, and hierarchical regression analysis were used to test the validity of the constructs, and the causal relationships between antecedents of graduate labour immobility in South Africa. Hierarchical regression analysis was also conducted in this phase to test how the factors impact the perceptions of graduate labour immobility amongst South Africans.

The statistical analysis was conducted using Statistical Package for Social Sciences (SPSS) version 29. As the pilot study results have already been addressed in Section 4.8.3, this chapter will elaborate solely on the final data obtained from the sample. The following sections explain and report on the findings from the study regards to Section A to F, the first part Section starting

with the tabulation of frequencies and the demographic and thereafter discussion follow for Section B (Discouraged graduate (im)mobility and perception of graduates, Section C (Education), Section D (Employed participants), Section E (Unemployment Participants) and Section F (Geographical location) of the sample.

### **5.3 FREQUENCIES OF DEMOGRAPHICAL CHARACTERISTICS OF THE SAMPLE (SECTION A OF QUESTIONNAIRE)**

In this section an in-depth discussion will be provided on the demographics of the sample. The demographics include age, race, language, marital status, living status, dependents, household contribution and total gross income. Table 5.1 provide a summary of the demographical characteristics of the sample.

**Table 5-1: Demographical Characteristics of the sample**

<b>Item</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Age	18-25	59	25.1
	26-35	106	45.1
	36-45	52	22.1
	46-64+	18	7.7
Gender	Male	73	31.1
	Female	157	67.2
	Non-Binary	3	1.3
	Prefer not to say	1	.4
Race	Black/African	110	46.8
	White	44	18.7
	Coloured	72	30.6
	Indian	9	3.8
Languages	English	67	28.5
	Afrikaans	77	32.8
	Setswana	16	6.8
	SeSotho	27	11.5
	Sepedi	7	3.0
	IsiZulu	20	8.5

	IsiXhosa	8	3.4
	Xitsonga	3	1.3
	Tshivenda	2	.9
	IsiNdebele	3	1.3
	Swati	4	1.7
	More than one	1	.4
Marital Status	Single/unmarried	121	51.5
	Married	97	41.3
	Divorced or separated	11	4.7
	Widowed	4	1.7
	Prefer not to say	2	.9
Living Status	Single or unmarried (living alone or with friends)	76	32.3
		108	46.0
	Married or living with a partner.	45	19.1
	Living with family/parents	6	2.6
	Prefer not to say		
Dependents	1	38	16.2
	2	55	23.4
	3	46	19.6
	4	28	11.9
	5	21	8.9
	6	5	2.1
	7	2	.9
	8	2	.9
	12	38	16.2
Household Contribution	I am the sole earner (I contribute 100%)	65	27.7
		42	17.9
	I am the main earner (I contribute more than 50%)	128	54.5
	I am a joint earner (I contribute about 50%)		

Total Gross Income	Less than R 10 000	24	10.2
	Between R 10 000 and R 15 000	16	6.8
	Between R 10 000 and R 15 000	36	15.3
	Between R 25 000 and 35 000	39	16.6
	Between R 35 000 and 50 000	39	16.6
	Between R 50 000 and 70 000	25	10.6
	Between R 70 000 and 100 000	30	12.8
	More than R 100 000	26	11.1

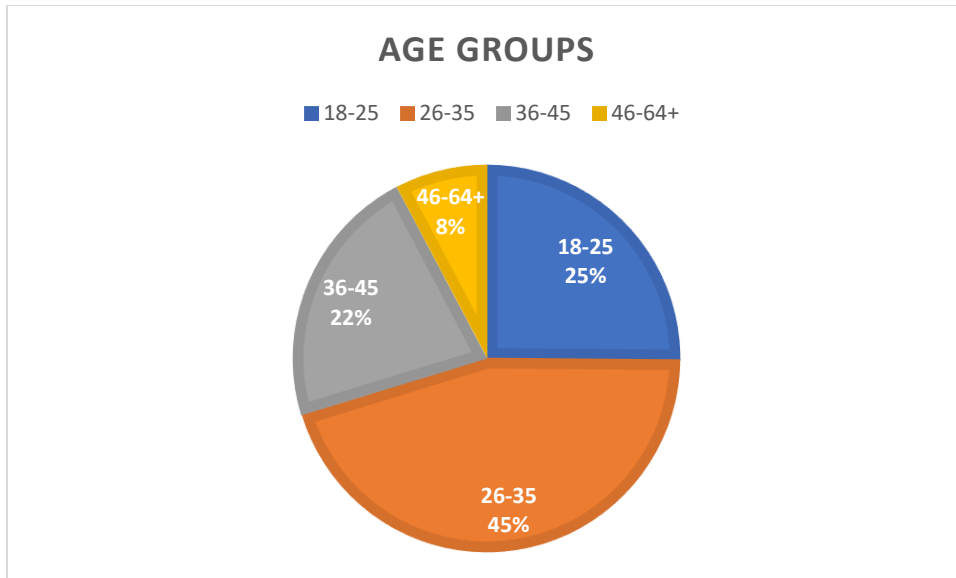
Source: Compilation by author (2023)

Furthermore, Table 5.1 represents the total number of frequencies obtained from the sample for Section A which included questions 1 to 10. Section 5.3.1 highlight the demographic characteristics of the sample followed by section 5.4 which will highlight the factor analysis.

**5.3.1 Section A of the questionnaire: In-depth discussion of Demographic characteristics of the sample**

This section of the chapter provides an in-depth discussion on the demographic profile of the sample’s participants. This aforementioned profile includes information about the participants age, gender, race, spoken languages, marital status, living status, number of dependents and financial contribution to their household and lastly their estimated total gross income to the household.

Figure 5.1 shows the age of the participants in this study, age was captured as a nominal variable. The total number of the sample size of respondents was 235 where the majority of respondents fall into the age group 26-35, with 106 individuals, making up 45.1% of the sample. In particular, the second largest age group is between the ages of 18-25, with 59 individuals (25.1%). 36-45 contains 52 individuals and represents (22.1%) of the sample size. Participants between the ages of 46-64+ has the smallest representation, with only 18 individuals and a percentage representing (7.7%). As noted in Table 5.2, the study denotes that the youngest participant is 20 years of age and the oldest 63 years of age. However, the mean of the sample size is captured at the age of 32 years. Which supports the largest number of participants falling in the category aged 26-35.

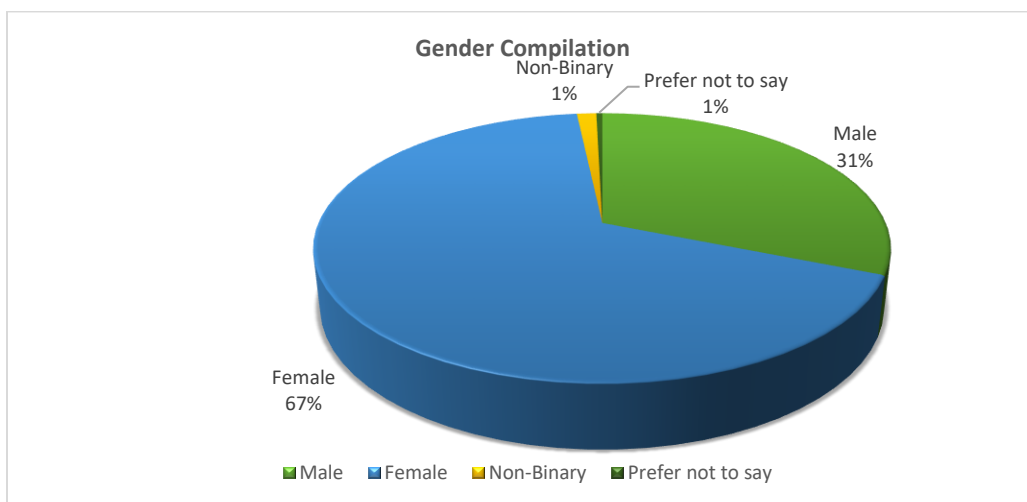


**Figure 5-1: Age Group**

Source: Survey data (2023)

### 5.3.1.1 Gender compilation

Female is the most common gender, with 157 respondents (67.2%). Male is the second most common, with 73 respondents (31.1%). Non-Binary and Prefer not to say have very low representation in the sample.

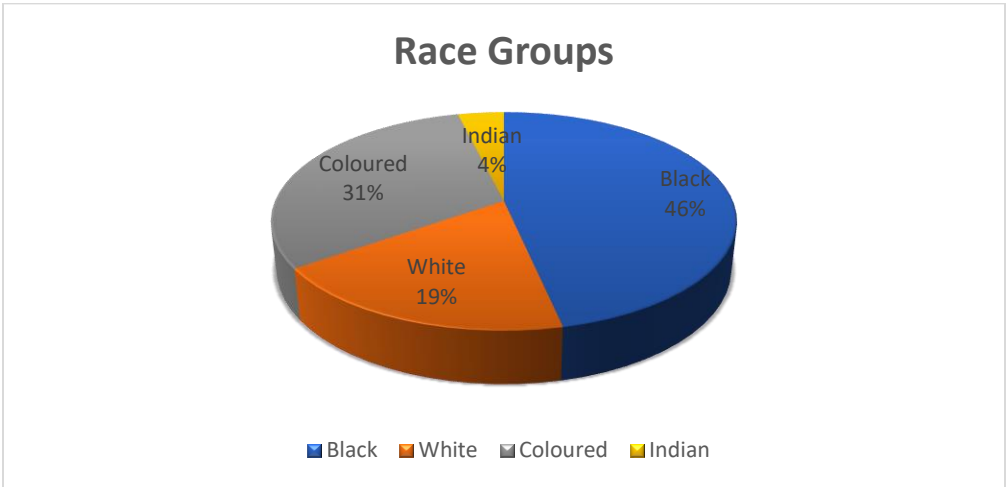


**Figure 5-2: Gender compilation**

Source: Survey data (2023)

**5.3.1.2 Race distribution**

Black/African is the largest racial category, with 110 respondents (46.8%). Coloured is the second largest, with 72 respondents (30.6%). White is the third largest, with 44 respondents (18.7%). Indian has the smallest representation, with 9 respondents (3.8%).

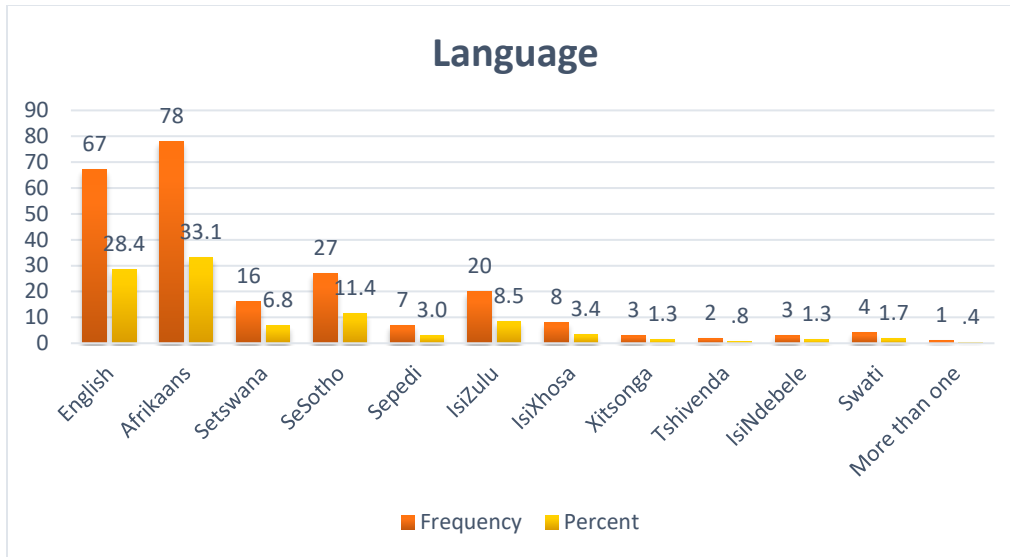


**Figure 5-3: Race**

Source: Survey data (2023)

**5.3.1.3 Language**

English and Afrikaans are the most spoken languages, with 67 (28.4%) and 78 (33.1%) respondents, respectively. Other languages have lower representation, with Setswana (6.8%) and SeSotho (11.5%) being notable examples. More than one language is chosen by a small percentage of respondents which only represents (0.4%) of the sample size.

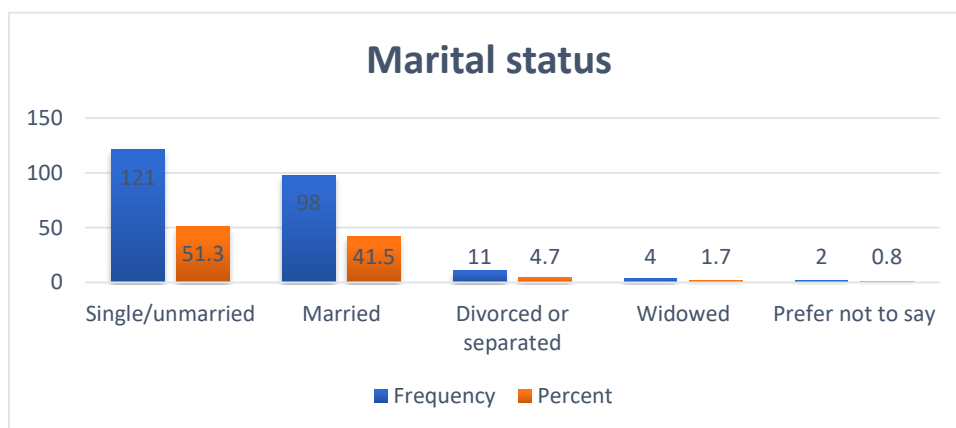


**Figure 5-4: Language**

Source: Survey data (2023)

### 5.3.1.4 Marital Status

Single/unmarried is the most common marital status among the same size, with 121 respondents which represents a total of (51.5%) of the survey sample. Those participants within the Married category are the second largest group, with 97 respondents and a percentage representation of (41.3%). The Divorced or separated category and widowed have lower representation. However, the prefer not to say category is chosen by a small percentage only.

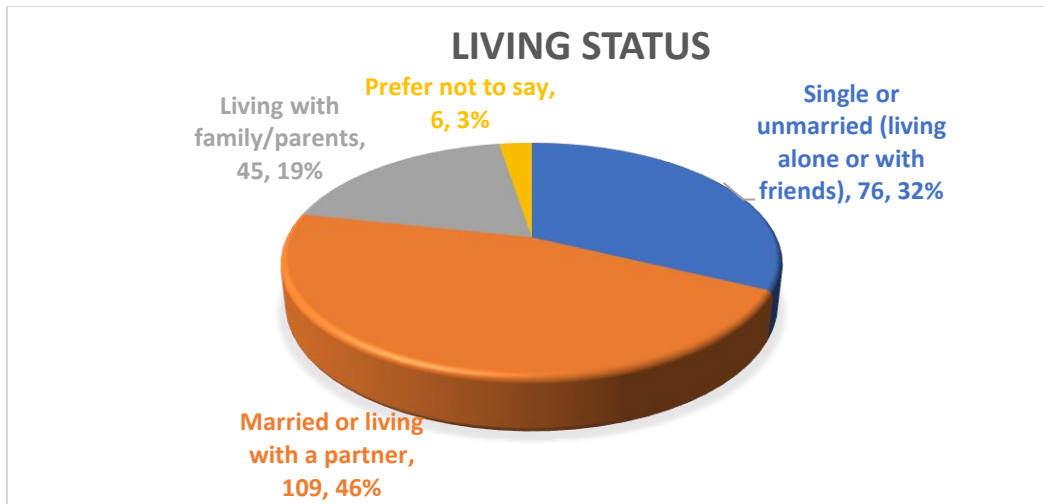


**Figure 5-5: Marital Status**

Source: Survey Data (2023)

### 5.3.1.5 Living status

Married or living with a partner" is the most common living status, with 108 respondents (46.0%). Single or unmarried (living alone or with friends) is the second largest group, with 76 respondents (32.3%). Living with family/parents is the third largest group. Prefer not to say has low representation.

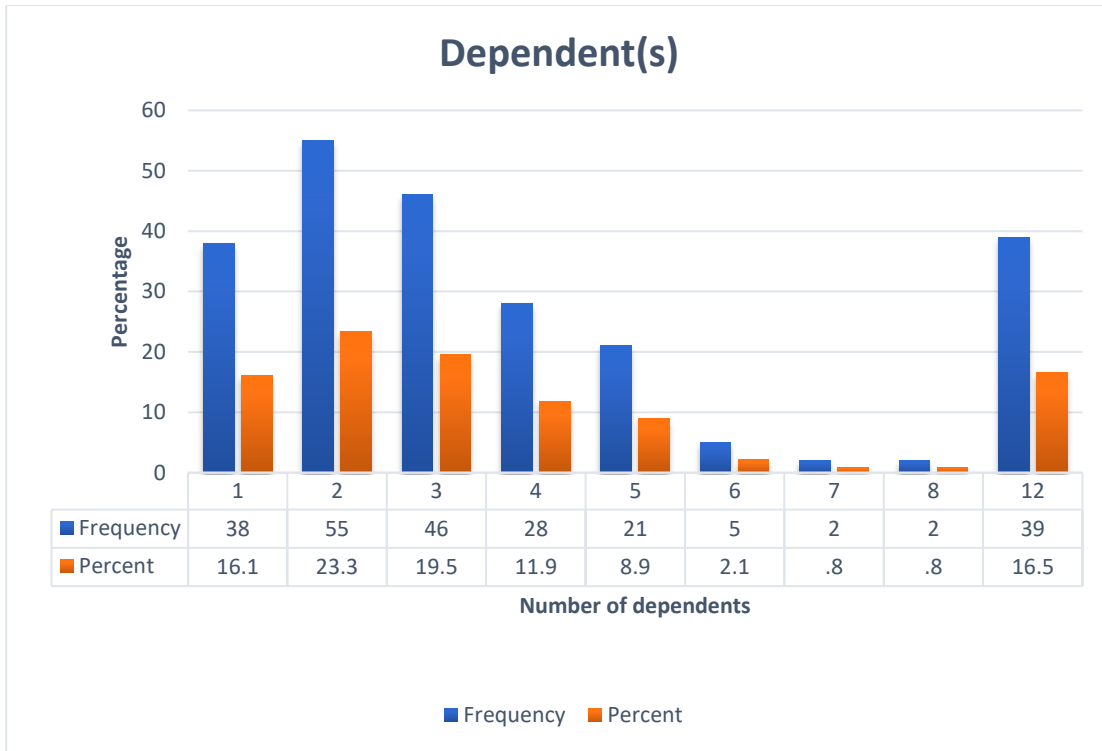


**Figure 5-6: Living status**

Source: Survey (2023)

### 5.3.1.6 Dependents in household

"2" dependents is the most common, with 55 respondents (23.4%). "1" and "3" dependents are also fairly common. "8" dependents have the lowest representation.

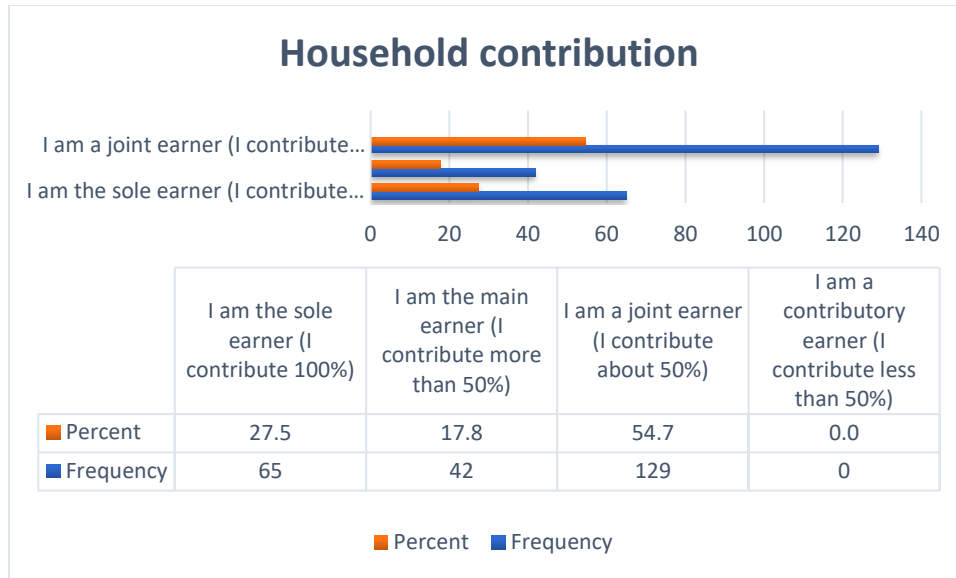


**Figure 5-7: Dependents in Household**

Source: Survey (2023)

**5.3.1.7 Household contribution**

"I am a joint earner (I contribute about 50%)" is the most common contribution level, with 128 respondents (54.5%). In addition, the "I am the sole earner (I contribute 100%)" category and "I am the main earner (I contribute more than 50%)" category have lower representation in the survey sample size.

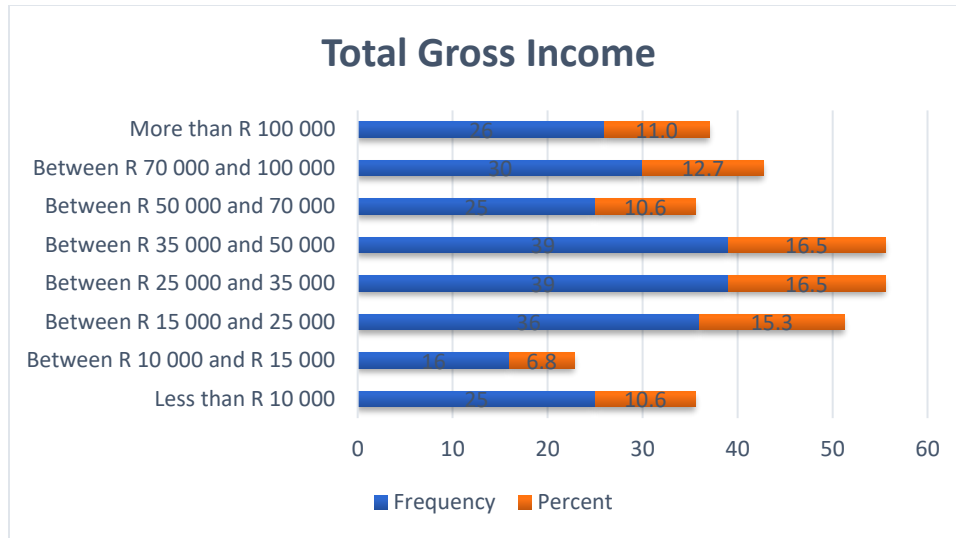


**Figure 5-8: Household contribution**

Source: Survey (2023)

#### 5.3.1.8 Total gross income

The majority of respondents fall into the income ranges "Between R 15,000 and 25,000" and "Between R 25,000 and 35,000." "Less than R 10,000" and "More than R 100,000" have the lowest representation. The average wage in South Africa is (gross) R303,648 per year or R25,304 per month, according to Stats SA (2023) and their quarterly employment survey (QES). The results from this quarter show a 2.7% decline from the previous quarter and a 6.8% increase from the first quarter of 2022. Therefore, it supports the data results as found in Figure 5-9 which shows that majority of the participants falls within the R15 000 to R25 000 and R 25 000 to R 35 000 salary bracket as found by Stats SA (2023).



**Figure 5-9: Total Gross Income**

Source: Survey Data (2023)

These descriptive statistics provide valuable insights into the distribution of various categorical variables in the dataset, allowing one to understand the demographics and characteristics of the sample size in the study.

### 5.3.2 Section B of the questionnaire: In-depth discussion of Discourage Graduate (Im)mobility and Perception of Graduates of the sample

As mentioned previously a total of 241 questionnaire was completed and returned and a total number of usable questionnaires was 235. In Table 5.2 tabulated data and frequencies from the responses are shown.

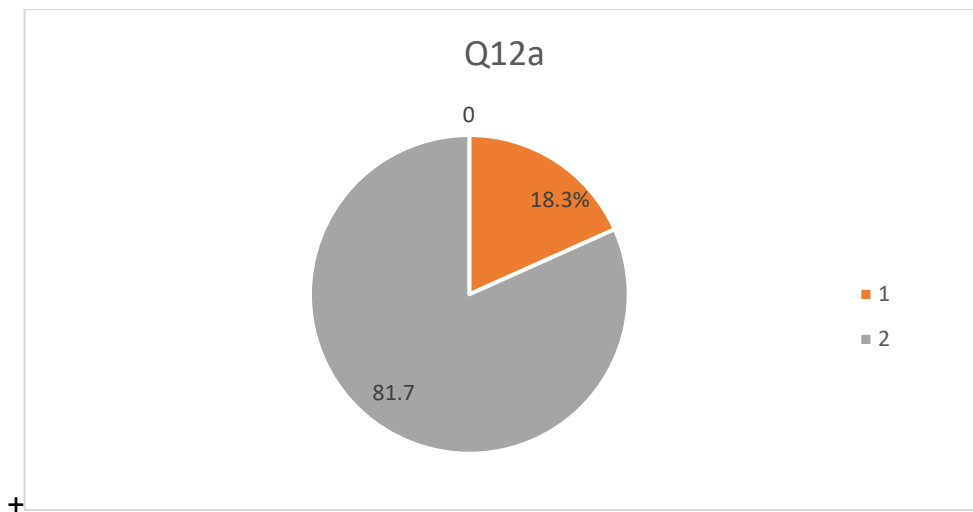
**Table 5-2: Frequencies**

Section B: Discouraged Graduate (Im)mobility and Perception of Graduates					
Scale Item	Very unlikely	Unlikely	Neutral	Likely	Very likely
11a Urban area	7.2	7.7	19.6	36.2	29.4
11b A rural area	48.1	27.2	17.4	5.5	1.7
11c A small town	21.3	25.1	31.1	16.2	6.4
11d Another province	8.1	11.1	25.5	35.7	19.6
11e Another country	11.9	13.2	20.4	29.8	24.7

Source: Survey (2023)

As seen in Table 5.2, 36.2% of the total population are likely to move to an urban area. 1.7% are very likely to move to a rural area and 31.1 % of the population are not sure if they would move to a small town. 35.7 % are likely to move to another province and 29.8% are likely to move to another country.

With regards to question 12a as seen in figure 5-10 it is clear that 18.3% of the participants indicated that (1) very unlikely and 81.7% (2) unlikely consider moving for job opportunity to any urban area, rural area, small town, another province or another country.



**Figure 5-10: Very unlikely or likely to move to any urban area, rural area, small town, another province or another country**

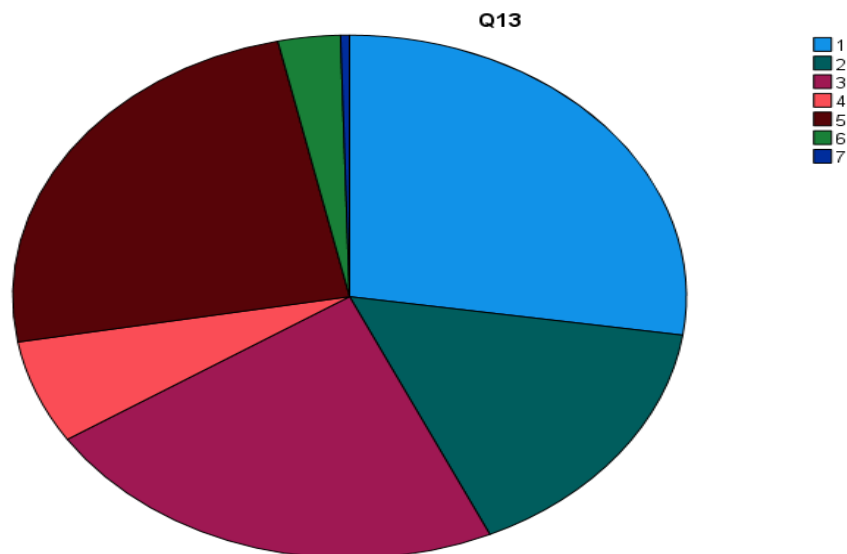
Table 5.3 provide the reasons for very unlikely or likely not to move for a job opportunity and 82.1% are unlikely to move as there is no suitable work available. 95.7% of the participants indicated that they unlikely to move as they do not have the skills for a job opportunity and 94% indicate that they do not meet the job requirements.

**Table 5-3: Reasons very unlikely or unlikely not to move for a job opportunity**

Q12. Possible very unlikely or unlikely reason not to move to consider moving for job opportunity to any urban area, rural area, small town, another province or another country.		
Scale item	Very unlikely	Unlikely
12b No suitable work available	17.9	82.1
12c Skill (im)mobility (do not have the required skills)	4.3	95.7
12d Area not relevant to skill capacities	17.9	82.1
12e Do not meet job requirements	6.0	94.0
12f Could not meet job requirements	7.7	92.3
12g Could not find a suitable job	8.9	91.1
12h Better quality of life, better safety, and progress	34.0	66.0
12i I have previously worked in a small/rural town and would not consider it again	0.9	99.1
12j We have other income streams, besides my current employment	0.4	99.6
12k Responsibility towards family	0.4	99.6
12l I'm under the belief that there is a limitation in career paths should one relocate to a rural area	30.2	69.8
12m Stability for my family	26.0	74.0
12n Proximity to family	15.3	84.7
12o Want to contribute towards building my country	6.0	94.0
12p Moving will be a big adjustment to my current lifestyle	17.9	82.1
12q need medical care constantly	6.4	93.6
12r Already live in rural area	1.3	98.7
12s Financial restrain	1.7	98.3
12t Other reasons	0	0

Source: Survey (2023)

As seen in Figure 5.11, 27.4% of the total population ideal type of work is to start their own business while 3.0% would work at any job where their calling can be fulfilled.



1=start my own business; 2=work in the public sector; 3=work in the private sector; 4=Any decent job; 5=any good paying job; 6- Any job where my calling can be fulfilled

**Figure 5-11: Ideal type of economic activity (work preference)**

Source: Survey (2023)

**Table 5-4: Ideal type of work**

Question 13		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. Start my own business	64	27.2	27.4	27.4
	2. Work in the public sector	37	15.7	15.8	43.2
	3. Work in the private sector	53	22.6	22.6	65.8
	4. Any decent job	15	6.4	6.4	72.2
	5. Any good paying job	57	24.3	24.4	96.6
	6. Any job where my calling is fulfilled	7	3.0	3.0	99.6
	Missing data	1	.4	.4	100.0
Total		234	99.6	100.0	
Missing	System	1	.4		
Total		235	100.0		

Source: Survey (2023)

**Table 5-5: Refused a job opportunity in any areas: urban area, rural area, small town, another province and another country**

Scale Item	Yes	No
14a urban area	28.5	71.5
14b a rural area	11.9	87.2
14c a small town	15.7	83.4
14d another province	20.0	79.1
14e another country	12.8	86.4

Source: Survey (2023)

Table 5-5 shows that 11.9% of the participants refused a job opportunity in the urban area and 20% of the participants refused a job opportunity in another province and 12.6% in another country.

**Table 5-6: Possible reason why participants respond yes or no for a job opportunity to move**

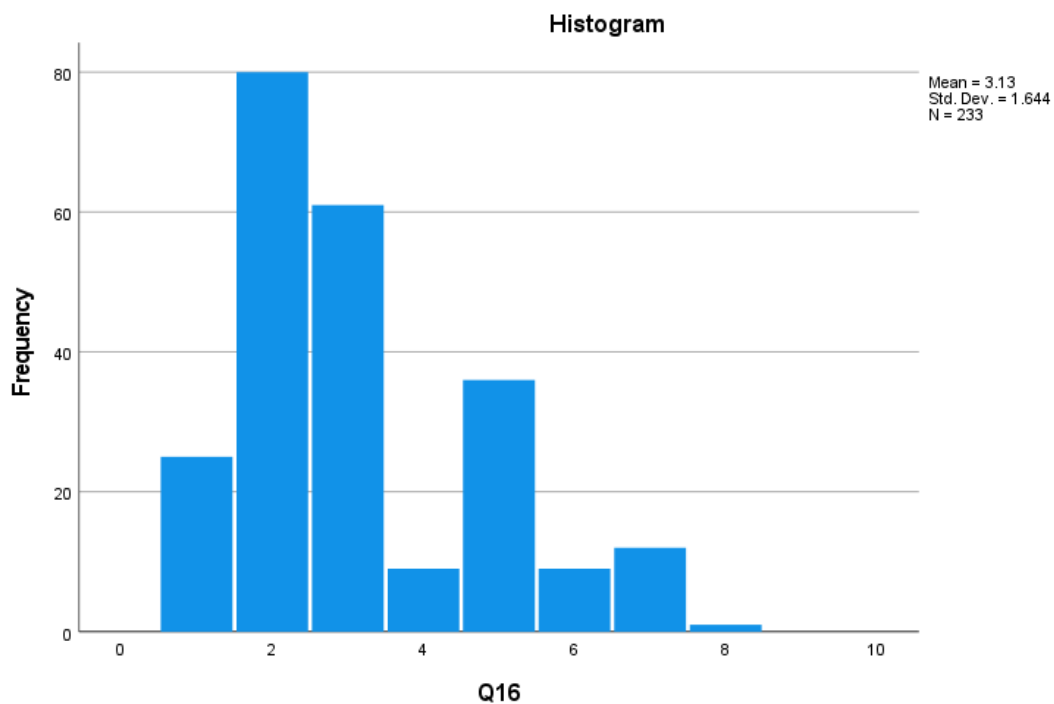
Scale Item	Yes	No
15a Not applicable (I have not refused a job opportunity in any of the above areas)	46.0	54.0
15b The location was not convenient	18.3	81.7
15c I would have to travel far from home	13.6	86.4
15d The salary offered was too little	18.3	81.7
15e The work opportunity was not interesting	6.0	94.0
15f The work would not match my level of qualifications	7.7	92.3
15g The work would require too few hours	1.3	98.7
15h The work would require too many hours	3.4	96.6
15i I am waiting for a better job offer/opportunity	6.0	94.0
15j I saw no opportunity for advancement	9.4	90.6
15k No offers	8.9	91.1
15l Would have to be away from my family	8.5	91.5
15m Too much traveling in heavy traffic	6.4	93.6
15n Salary was very low	7.7	92.3
15o Had a better job offer	6.0	94.0

15p Never appointed after multiple job interviews	1.7	98.3
15q Other	.9	99.1

Source: Survey (2023)

### 5.3.3 Section C of the questionnaire: Education and employment status of graduates

Section C focus on aspects such as highest qualification and employment status. Question 16 under Section C focus on the highest qualification obtain by the participant. In Figure 5.12 it shows 80 participants (34%) have a Bachelors Degree and 61 participants' (26%) obtain an Honours Degree and 36 (15.3%) participants obtain a Masters degree.



1=Diploma, 2=Bachelors degree; 3=Honours Degree; 4=Postgraduate degree; 5= Master's Degree; 6=MBA/MBL; 7=PhD; 8=Other qualifications

**Figure 5-12: Survey completion results for highest qualification (Question 16)**

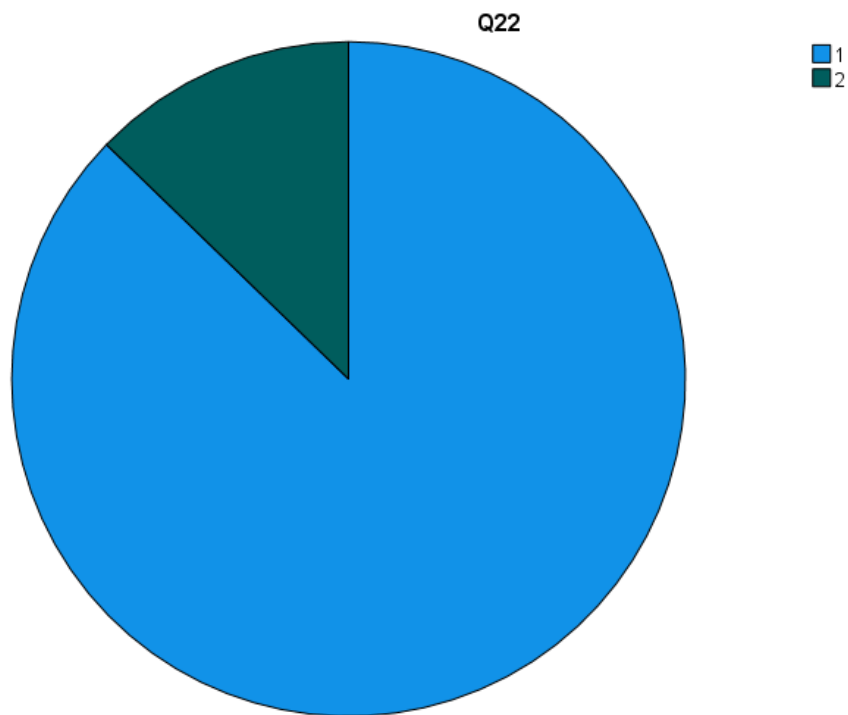
Source: Survey (2023)

In regard to employment status Question 22 on Figure 5-13 indicates that 87.2% of the participants are employed and only 12.8% are unemployed and it is clear in figure 5-14 that 68.5% are employed on a full-time/permanent basis and 6.4% on a graduate programme.

**Table 5-7: Employment status**

		Q22			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	205	87.2	87.2	87.2
	2 No	30	12.8	12.8	100.0
Total		235	100.0	100.0	

Source: Survey (2023)



1=employed; 2=unemployed

**Figure 5-13: Employment status (Question 22)**

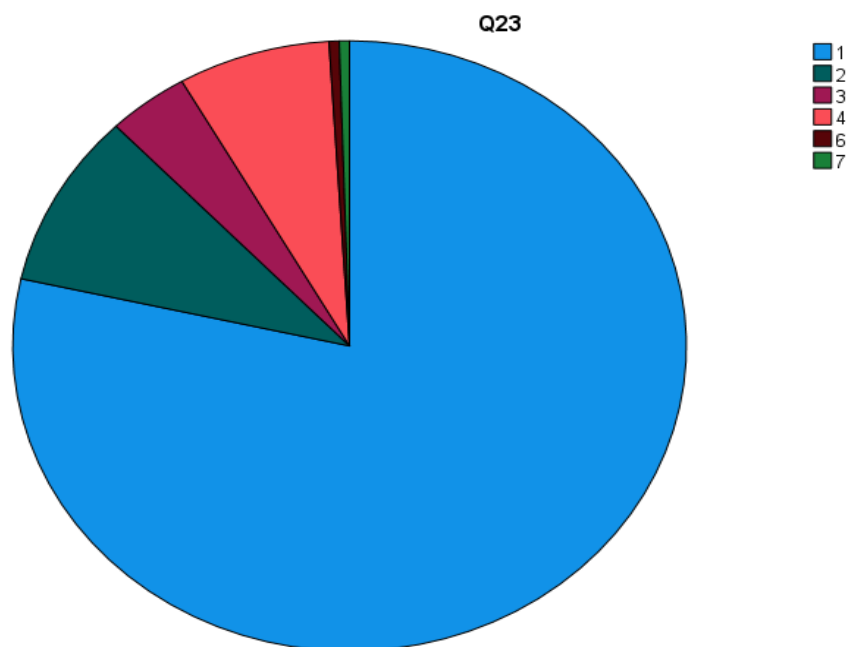
Source: Survey (2023)

Question 23 Figure 5-14 focus on the basis of current employment. 68.5% of the participants are employed on full-time/ permanent contract and only 0.4% self-employed while 0.4% of participants fall under other.

**Table 5-8: Basis of currently employment**

		Frequency	Percent	Valid Percent	Cumulative Percent
	1 Full-time/permanent contract	161	68.5	78.5	78.5
	2 Part-time/fixed contract	19	8.1	9.3	87.8
	3 Internship	8	3.4	3.9	91.7
	4 Graduate programme	15	6.4	7.3	99.0
	6 Self-employed	1	.4	.5	99.5
	7 Other	1	.4	.5	100.0
	Total	205	87.2	100.0	
Missing	System	30	12.8		
Total		235	100.0		

Source: Survey (2023)



1=Full-time/permanent contract; 2=part-time/fixed contract; 3=internship; 4=graduate programme; 5=free lancing; 6=self-employed; 7=other

**Figure 5-14: Basis of currently employment**

Source: Survey (2023)

Question 25 focus on sector/industry of employment. As seen in Table 5-9 below 29.8% of the participants are employed under the Education & FET sector and 0.4% are employed under Transport & Logistics as well as the Automotive industry.

**Table 5-9: Sector/Industry employed**

Q25				
Industry	Frequency	Percent	Valid Percent	Cumulative Percent
1. Financial corporate sector	43	18.3	21.0	21.0
2. Government/public sector	32	13.6	15.6	36.6
3. Education & FET	70	29.8	34.1	70.7
4. Travel, Tourism & Hospitality including restaurants	2	.9	1.0	71.7
5. Transport and Logistics	1	.4	.5	72.2
6. Retail/Sales	4	1.7	2.0	74.1
7. Automotive industry	1	.4	.5	74.6
8. Healthcare	12	5.1	5.9	80.5
9. Agricultural	1	.4	.5	81.0
10. Information Technology	6	2.6	2.9	83.9
11. Engineering	11	4.7	5.4	89.3
12. Manufacturing	5	2.1	2.4	91.7
13. Mining	3	1.3	1.5	93.2
14. Energy/Water	8	3.4	3.9	97.1
15. Other	6	2.6	2.9	100.0
Total	205	87.2	100.0	
Missing System	30	12.8		
Total	235	100.0		

Source: Survey (2023)

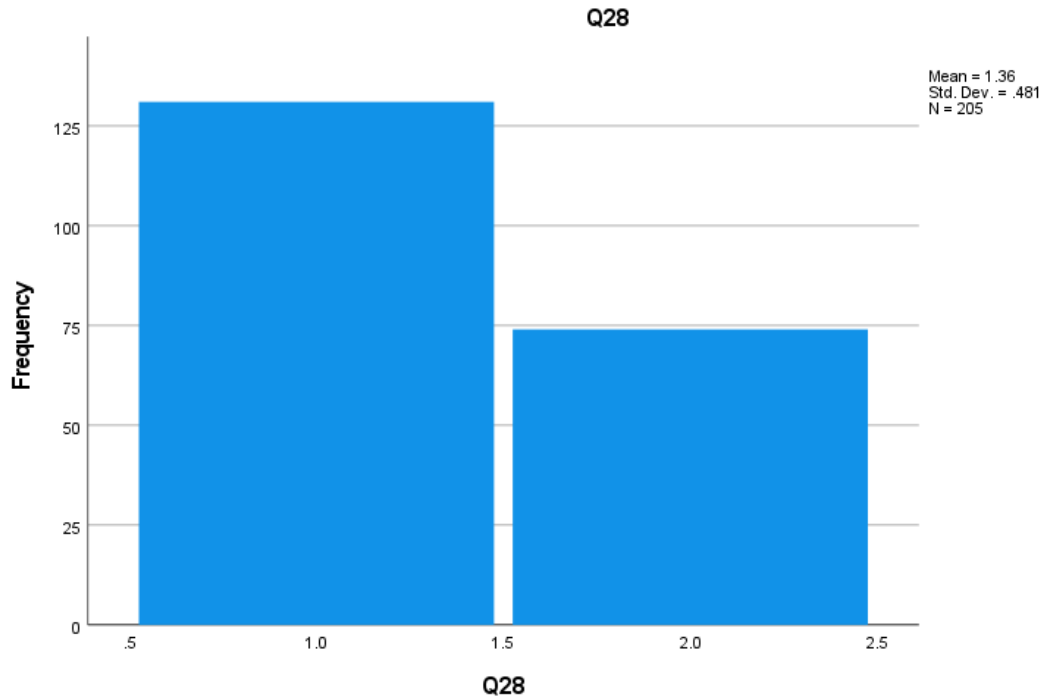
**Table 5-10: Current job level/position employed (Question 26)**

Q26					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1, Senior management	14	6.0	6.8	6.8
	2. Middle management	54	23.0	26.3	33.2

	3. Junior/lower-level management	40	17.0	19.5	52.7
	4. Entry level	58	24.7	28.3	81.0
	5. Not in management	39	16.6	19.0	100.0
	Total	205	87.2	100.0	
Missing	System	30	12.8		
Total		235	100.0		

Source: Survey (2023)

It is clear from Table 5-10 that 24.7% are employed in entry level management positions and 16.6% are not employed in management positions while 6.0% is employed in senior management.



**Figure 5-15: Skills and qualifications related to the current employment**

Source: Survey (2023)

**Table 5-11: Skills and qualifications related to the current employment**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	131	55.7	63.9	63.9
	2 No	74	31.5	36.1	100.0

	Total	205	87.2	100.0	
Missing	System	30	12.8		
Total		235	100.0		

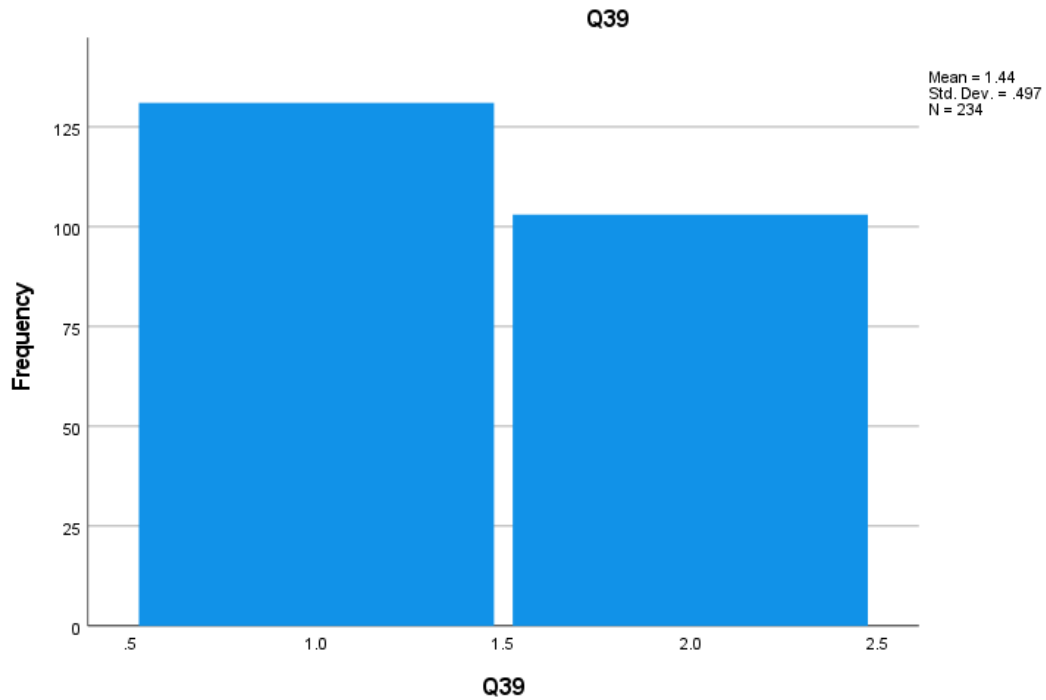
Source: Survey (2023)

Question 28 focus on additional skills/ qualifications related to the current job obtained during employment. As seen in Table 5-11 above, 55.7% of participants obtained additional skills/ qualifications during their current employment. However, 31.5% did not acquire any new skills or qualifications in their current workplace.

**Table 5-12: Overqualification graduate perception**

		Q30			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	64	27.2	31.2	31.2
	2 No	141	60.0	68.8	100.0
	Total	205	87.2	100.0	
Missing	System	30	12.8		
Total		235	100.0		

Table 5-12 shows that 60.0% of the participants feel overqualified for their current job and 27.2% feel just qualified.



**Figure 5-16: Overqualification graduate perception**

Source: Survey (2023)

Q39					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	131	55.7	56.0	56.0
	2 No	103	43.8	44.0	100.0
	Total	234	99.6	100.0	
Missing	System	1	.4		
Total		235	100.0		

Source: Survey (2023)

It can be seen in Table 5-13 shows that 55.7% of the participants live in same area/province where they grew up and 43.8% moved to a different area.

**Table 5-14: Main reason for moving/relocating to the current residence**

Q40					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 not applicable	107	45.5	45.7	45.7
	2 to accompany family	8	3.4	3.4	49.1
	3 For education and training	33	14.0	14.1	63.2
	4 Learnership/apprenticeship	3	1.3	1.3	64.5
	5 Due to work/for employment related reasons	65	27.7	27.8	92.3
	6 reside in a neighbouring area	3	1.3	1.3	93.6
	7 to be closer to the family	5	2.1	2.1	95.7
	8 Migration	1	.4	.4	96.2
	9 Marriage	1	.4	.4	96.6
	10 Other	2	.9	.9	97.4
	11 I moved with my current partner	6	2.6	2.6	100.0
	Total	234	99.6	100.0	
Missing	System	1	.4		
Total		235	100.0		

Source: Survey (2023)

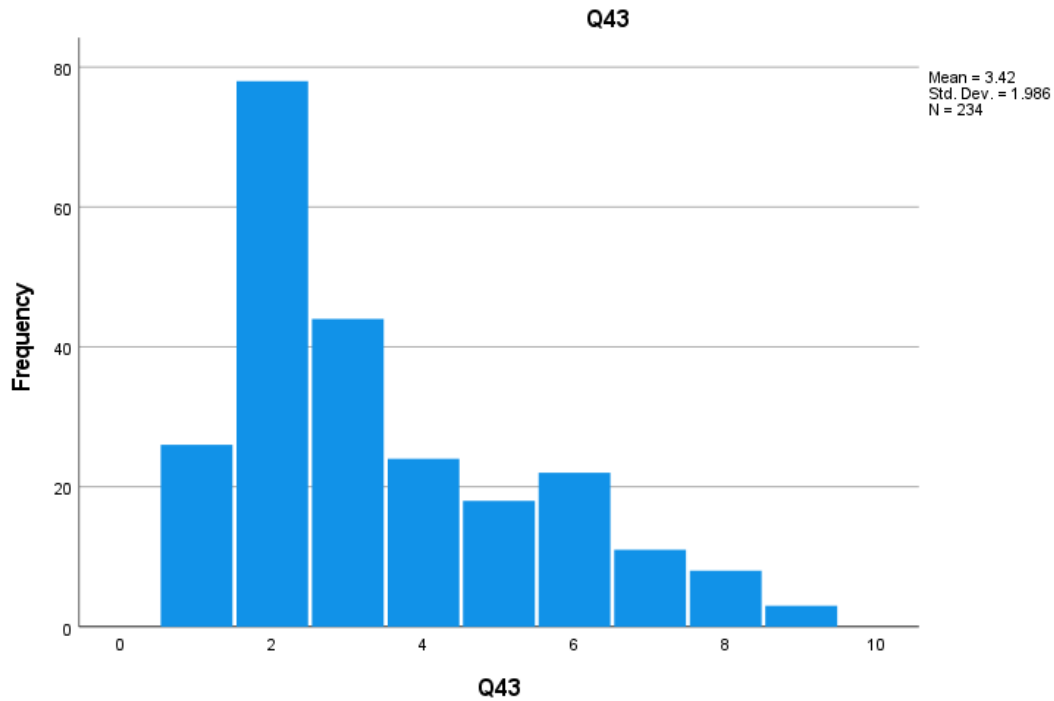
Table 5-14 focus on the main reason for moving/relocating to the current residence. 45.7% of the participants still live in the same area/province they grew up in and 0.4% relocated because of marriage as well as 0.4% relocated because of migration.

**Table 5-15: Urban areas versus rural farm areas**

Q41					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Not applicable	24	10.2	10.3	10.3
	2 Metropolitan area	54	23.0	23.1	33.3
	3 Urban area	126	53.6	53.8	87.2
	4 Small town	25	10.6	10.7	97.9
	5 Rural farm area	5	2.1	2.1	100.0
		Total	234	99.6	100.0
Missing	System	1	.4		
Total		235	100.0		

Source: Survey (2023)

As seen on Table 5-15, which indicates that 3.6% of the participants work in urban areas while only 2.1% work in rural farm areas.



**Figure 5-17: Distance traveling to work**

Source: Survey (2023)

Question 43 focuses on the distance participants travel to work per day.

**Table 5-16: Mode of transportation**

Q42					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Not applicable (due to unemployment)	23	9.8	9.8	9.8
	2 Private/own vehicle	159	67.7	67.9	77.8
	3 Public transport(taxi, bus, train)	20	8.5	8.5	86.3
	4 Lift club	12	5.1	5.1	91.5
	5 No means of transport – walk to work	11	4.7	4.7	96.2

	6 Work from home	9	3.8	3.8	100.0
	Total	234	99.6	100.0	
Missing	System	1	.4		
Total		235	100.0		

Source: Survey (2023)

Table 5-16 depicts that 67.7% of the participants use private/own vehicles as means of transportation and 3.8% work from home. While 9.8% of participants make use of public transportation.

**5.4 VALIDITY AND RELIABILITY OF THE MEASUREMENT INSTRUMENT**

**5.4.1 Quantitative findings**

The questions formulation used for the questionnaire was developed on the literature review. As explained in Chapter 4, the quantitative findings were generated using a self-developed questionnaire, which consisted of Sections A – E. It includes sub-sections with Likert-scale questions, and these findings will be reported using descriptive and inferential statistics. In the previous Chapter 4 (Section 4.6.3), the importance of reliability and validity of cross-sectional design is emphasised regarding the trustworthiness of the result (Brinkman, 2009:42). As discussed in Section 4.6.3.1 the pilot study returned acceptable reliability and Table 5-25 below the result for the final survey data reliability and validity of the scales are reported.

**5.4.2 Construct validity**

Items of the research instrument were subjected to factor analytical procedure. A Principal Component Analysis was carried out on the four questionnaire items. The results showed that one factor was extracted that explained 51.28% of the total variances, and the results had eigenvalues larger than one.

The findings are shown in Table 5-5 below, which denotes “The work would require too few hours” has the highest factor loading which suggests that this item is strongly related to the underlying construct being measured, and it contributes significantly to the variability in that construct and depicts a variance of 60.4%. In addition, "The work opportunity was not interesting" and "I saw no opportunity for advancement" also have a relatively high factor loading and explain the substantial portion of the variances, which depict variances of 49.4% and 48.4%. Both of these factors are important in measuring the underlying construct. Lastly, “The salary offered was too little” has a

somewhat lower factor loading compared to the other items and explains a slightly smaller proportion of the variance of 46.9%, but it is still significant in measuring the construct.

**Table 5-17: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Career aspiration mismatch/concerns**

Item	Description	$F_i$	$h^2$
Q15d	The salary offered was too little	.685	.469
Q15e	The work opportunity was not interesting	.703	.494
Q15f	The work would require too few hours	.777	.604
Q15j	I saw no opportunity for advancement	.696	.484

Source: Survey (2023)

As seen in Table 5-17 a principal component analysis was performed on the two items of Travelling immobility and one factor was extracted that account for 67.66% of the total variance in the data.

**Table 5-18: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Traveling immobility**

Item	Description	$F_i$	$h^2$
Q15c	I would have to travel far from home	0.677	0.825
Q15m	Too much traveling in heavy traffic	0.677	0.825

Source: Survey (2023)

Next, a principal component analysis was performed on the two items of travelling immobility and (geographical) location stability. One factor was extracted, accounting for 50.35% of the total variance in the data.

**Table 5-19: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Geographical/location stability Items**

Item	Description	$F_i$	$H^i$
Q12a	I would consider moving for a job opportunity to any area	0.523	- .0.723
Q12h	Better quality of life, better safety and progress	0.571	0.756
Q12n	Proximity to family	0.416	0.645

Source: Survey (2023)

The factor loadings were between 0,571 and 0,416, which were sufficiently to justify the use of the items as a single scale. Items 12a, should be reverse scored. Factor analysis was performed on Geographical/location and explained 68.11% of the total variance. As indicated in section 4.6.2 construct validity analysis.

**Table 5-20: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Geographical/Location Stability Items**

Item	Description	$F_i$	$H^i$
Q12b	No suitable job is available	0.681	0.825
Q12d	Area not relevant to skills capacities	0.681	0.825

Source: Survey (2023)

The factor loadings were equal at 0.681, which was sufficient to justify the use of the items as a single scale, which consists of items 12b and 12d. Factor analysis was performed on Geographical/location and explained 68.11% of the total variance.

**Table 5-21: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Barriers of Employment Items**

Item	Description	$F_i$	$H^i$
Q12s	Financial strain and race	0.639	0.799
Q15g	The work would require too many hours	0.639	0.799

Source: Survey (2023)

As seen in Table 5-21 the factor loadings are equal for both items, indicating a 0.639, which was sufficient to justify the use of the items as a single scale. Factor analysis was performed on barriers to employment and explained 63.90% of the total variance.

**Table 5-22: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Relocate Immobility for a Job Opportunity Items**

Item	Description	$F_i$	$H^i$
Q11a	Urban area	0.758	0.574
Q11b	Rural area	0.523	<b>0.274</b>
Q11c	Small town	0.722	0.522
Q11d	Another province	0.857	0.734
Q11e	Another country	0.767	0.589

Source: Survey (2023)

Table 5-22 show the factor analysis for the five items of Relocate Immobility for a Job Opportunity Items and a total variance of 53.85% could be explain.

**Table 5-23: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Geographical Immobility for a Job Opportunity Items**

Item	Description	$F_i$	$H^i$
Q14a	Urban area (including a large city or metropolitan area)	0.599	0.582
Q14b	Rural area	0.582	0.802
Q14c	Small town	0.675	0.682
Q14d	Another province	0.584	0.556
Q15b	The location was not convenient	0.645	0.423
Q15c	I would have to travel far from home	0.555	0.640
Q15f	The work would not match my level of qualification	0.392	0.648
Q15m	Too much traveling in heavy traffic	0.523	0.631

Source: Survey (2023)

As seen from Table 5-23 above on the eight items of Geographical Immobility job opportunity items a total variance of 62.18% could be explained.

**Table 5-24: Factor Loadings, Communalities ( $h^2$ ) and Percentage Variance for Principal Component Analysis on Family Immobility Job Opportunity Items**

Item	Description	$F_i$	$H^i$
Q14e	Another country	0.859	0.738
Q15l	Would have to be away from my family	0.859	0.738

Source: Survey (2023)

The factor loadings were equal at 0.859, which was sufficient to justify the use of the items as a single scale, which consists of items 14e and 15l. Factor analysis was performed on the two items of Family Immobility Job Opportunity Items explained 73.84% of the total variance.

### 5.4.3 Reliability results

As discussed in Section 4.6.3 in the previous chapter, the pilot study shows acceptable reliability. SPSS version 26. As seen below in Table 5-13 the Cronbach Alpha was between 0.432 to 0.734. The Cronbach alpha was below 0.70. In exploratory research or when a scale is in the early stages of development, Cronbach's Alpha in the range of 0.4 to 0.7 can be acceptable. It provides an initial indication of reliability and can guide further refinement of the scale (Ekolu & Quainoo, 2019). It is important to note that for all the constructs the corrected item-total correlation values were above the cut-off value of 0.3.

**Table 5-25: Reliability Results**

Construct name	Items	Number of items	Cronbach alpha	Average inter-item correlation
1. Career mismatch/concerns	Q15d; 15e; 15f; 15j	4	0.644	0.161
2. Traveling immobility	Q15c; 15m	2	0.501	0.250
3. Location stability	RQ12a; 12h; 12n	3	0.504	0.168
4. Skills mismatch	Q12 b; 12d	2	0.532	0.266
5. Employment barriers	Q12s; Q15g	2	0.432	0.216

6. Relocate Immobility for a job opportunity	Q11a-11e	5	<b>0.734</b>	<b>0.031</b>
7. Geographical immobility job opportunity	Q14a, 14b, 14c, 14d, 15b, 15c,15f, 15m	8	<b>0.719</b>	<b>0.002</b>
8. Family immobility job opportunity	Q14e, Q15l	2	<b>0.639</b>	<b>0.001</b>

Source: Survey (2023)

As depicted in Table 5-14, this construct, which assesses career mismatch or concerns, comprises four items and has a Cronbach's alpha of 0.644. A Cronbach's alpha of 0.644 suggests moderate internal consistency reliability. The construct consists of items that are reasonably related to each other, and it can be considered moderately reliable for measuring career mismatch and concerns. A study by Carliner *et al.* (2008) agree with these finding indicated that the distance between employment locations and housing has increased and has become more straining over the years. These factors induce longer commutes which are caused by the separation of work and housing, as does the rent gradient, which often makes housing on the outskirts of urban regions less costly than housing near employment hubs (Horner & Mefford, 2007).

Furthermore, "Traveling Immobility," and "Location stability" which assesses issues related to mobility, consists of two items and has a Cronbach's alpha of 0.501 and 0.504. This alpha value suggests a relatively lower internal consistency. The items may not be strongly related to each other, indicating that the construct might have limited reliability. Items: Q12b, Q12d, which denotes "Skills mismatch" construct, has a Cronbach's alpha of 0.531, this alpha value suggests moderate internal consistency. The construct can be considered moderately reliable for measuring skills mismatch. "Employment Barriers" construct, which addresses barriers to employment, comprises two items and has a Cronbach's alpha of 0.432. This alpha value suggests relatively low internal consistency, indicating that the construct may have limited reliability. However, "Relocate Job Opportunity" construct includes five items, but Cronbach's alpha is not provided.

In addition, the average inter-item correlation ranges between 0.161 and 0.266. The optimal range for average inter-item correlation is 0.15 to 0.50. Greater than 0.50, and the goods are nearly identical to one another. Less than this indicates a poor correlation and inadequate measurement of the same construct or notion (Phelan & Wren, 2005).

## 5.5 DESCRIPTIVE ANALYSIS

As mentioned in Section 4.6.1 in the previous chapter, descriptive analysis includes various scales statistics analysis that shows the means, standard deviation, skewness values and kurtosis values. In Table 5-15 the result is reported for the descriptive statistics. Pallant (2016) reiterates that descriptive statistics comprise of the following measures: the data mean and the standard deviation. The descriptive statistics are used to describe the construct of the sample.

**Table 5-26: Descriptive statistics**

Construct name	Items	Number of items	Means	Standard Deviation	Skewness	Kurtosis
1. Career mismatch	Q15d; 15e; 15f; 15j	4	7.58	0.85	-2.34	5.19
2. Traveling immobility	Q15c; 15m	2	3.80	0.49	-2.45	5.24
3. Location stability	RQ12a;12h; 12n	3	4.69	0.87	-0.21	-0.62
4. Skills mismatch	Q12 b; 12d	2	3.64	0.63	-1.57	1.20
5. Employment barriers	Q12s; Q15g	2	3.97	0.19	-7.23	57.53
6. Immobility of relocation of job opportunity	Q11a-11e	5	15.09	4.27	-0.23	-0.27
7. Geographical immobility job opportunity	Q14a, 14b, 14c, 14d, 15b, 15c,15f, 15m	8	14.78	1.62	-1.28	1.15
8. Family immobility job opportunity	Q14e, Q15l	2	3.79	0.53	-2.44	4.88

Source: Survey (2023)

Table 5-26 presents the descriptive statistics which consist of a few constructs pertaining to question 12, 14 and 15. The mean ranges between 3.80 to 15.09 it indicates the average response for this construct, which suggests that, on average, respondents perceive some degree of traveling immobility, employment barriers and relocate job opportunity. However, the mean of 7.59 indicates a relatively high level of perceived location stability.

The standard deviation of 0.49 indicates that responses tend to be clustered closely around the mean. The standard deviation of 0.85 suggests that the responses vary somewhat around the

mean. Employment barriers and relocate job opportunity suggests that the very low standard deviation of 0.19 indicates that responses are tightly clustered around the mean, suggesting low variability.

The negative skewness (-2.45) indicates that the data is left-skewed, meaning there might be a concentration of lower values. The negative skewness (-2.34) suggests a left-skewed distribution, similar to traveling immobility. The very negative skewness (-7.23) indicates a heavily left-skewed distribution, likely with a concentration of lower values. The construct of the kurtosis as illustrated by travelling immobility (5.24). Employment barriers suggests that the extremely high kurtosis (57.52) which suggests a distribution with very heavy tails and potential outliers.

As indicated in Chapter 4 Section 4.6 descriptive statistics are employed in order to define the constructs of the sample (Pallant, 2016). This section provided an overview of the demographical information along with scale validations.

## **5.6 NOMOLOGICAL VALIDITY ASSESSMENT USING PEARSON CORRELATION**

It is emphasized by different authors when utilising correlation matrix as a method can be used to determine nomological validity of constructs proposed for inclusion in a model (Spiro & Weits, 1990, p. 65; Hair et al., 2010, p.710). The computed results are given in Table 5-27 and indicated that a practical significant relationship existed between career mismatch and geographical immobility for job opportunities. Furthermore, a practical significant relationship with a large effect existed between travelling immobility and geographical immobility for a job opportunity.

As seen from Table 5-27 above, a statistical relationship existed between career mismatch/concerns and distance travelling and congestion. A study by Carliner et al. (2008) agree with these finding stating that It also shows that a relationship existed between skills mismatch and location stability. This was also found in the study of Xiao et al. (2023) whereby the research indicated that the mismatch relates to education and wages, which the study calculated independently utilizing the correlations between individuals' jobs and educational levels. In addition, employment barriers show a statistically large significant effect on relocation for job opportunities.

**Table 5-27: Pearson correlation**

Construct	1	2	3	4	5	6	7
1. Career mismatch	1						
2. Traveling immobility	.109	1					
3. Location stability	.097	.125	1				
4. Skills mismatch	.074	.183**	.161*	1			
5. Employment barriers	.055	-.018	-.030	.087	1		
6. Relocate Immobility	.032	.040	.221**	-.055	.029	1	
7. Geographical immobility job opportunity	.584**	.633**	.114	.135*	.074	.075	1
8. Family immobility job opportunity	.135*	.248**	.142*	-.141*	.021	.040	.325**

• Statistically significant  $p < 0,01$

\* Correlation is practically significant  $r^2: 0,30$  (medium effect)

\*\* Correlation is practically significant  $r^2: 0,50$  (large effect)

Source: Survey (2023)

### 5.7 MANOVA AND ANOVA ANALYSIS

As mentioned by Nilsson and Ripmeester (2016) demographical aspects could have an impact on immobility of students. Therefore, MANOVA and ANOVA analyses were done to determine the relationship between scores of the and various demographic characteristics such as age, gender, race, language, marital status, living status, dependants, financial contribution, total gross income, highest qualifications, field of study, type of employment, sector/industry employed, current job level/position, additional skills/qualification, current province, the same area/province grew up, reason relocating, current workplace location, transportation used to work and relocation and immobility outcomes.

**Table 5-28: MANOVAS – Differences in dependent variables and Levels of Demographic Groups**

Variable	Wilks'Lambda	F	df	p	$\eta^2$
Age	0.02	1.91	15.00	0.02*	0.17
Gender	0.96	0.64	15.00	0.85	0.14
Race	0.90	2.66	9.00	0.00*	0.03
Language	0.77	1.07	55.00	0.35	0.05

Marital Status	0.91	1.79	12.00	0.05*	0.03
Living Status	0.94	0.96	15.00	0.49	0.02
Dependents	0.73	1.79	40.00	0.00*	0.06
Financial contribution	0.95	1.19	10.00	0.29	0.03
Total Gross income	0.86	1.01	35.00	0.45	0.03
Highest qualification	0.88	0.83	35.00	0.75	0.03
Field of study	0.51	1.39	105.0	0.01*	0.13
Type of employment	0.81	1.75	25.00	0.01*	0.04
Sector/industry employed	0.63	1.32	70.00	0.05*	0.09
Current job level/position	0.86	1.49	20.00	0.08	0.04
Additional skills/qualification	0.96	1.67	5.00	0.14	0.04
Current province	0.86	0.933	35.00	0.58	0.03
The same area/province grew up	0.97	1.57	5.00	0.17	0.03
Reason relocating/moving	0.76	1.23	50.00	0.14	0.05
Current Workplace located	0.92	0.92	20.00	0.56	0.02
Transportation used to get to work	0.91	0.85	25.00	0.67	0.02
Relocation	0.58	1.27	95.00	0.05*	0.10

$\eta^2 > 0.25 = \text{large effect}$

\* Statistically significant difference:  $p < 0.05$

Source: Survey (2023)

MANOVA (Multivariate analysis of variance) was performed to determine the differences between demographic groups concerning career mismatch/concerns of graduates, travelling, location stability, skills mismatch, employment barriers and relocation job opportunities. Analysis results were first analysed for statistical significance using Wilk's Lambda statistics.

ANOVA was utilised to determine specific differences when statistical differences were found. In the analysis of Wilk's Lambda values, no statistical differences were found regarding gender, race, language, marital status, living status, Household contribution, Total Gross income, highest qualification, current job level/position, additional skills/qualifications, current province, and the same area/province grew up, reason relocating/moving, current workplace located, and transportation. The results of the ANOVA based on age are given in Table 5-29.

**Table 5-29: Differences in Dependent Variables based on Age**

Item	18-25 years	26-35 years	36-45 years	46 years and 64 years and older	<i>p</i>	Partial Eta Squared
1. Career mismatch / concerns	7.75	7.54	7.42	7.83	0.45	0.16
2. Traveling immobility	3.78	3.82	3.81	3.72	0.61	0.15
3. Location stability	4.90	4.49	*4.77	4.94	0.22	0.18
4. Skills mismatch	3.58	3.60	3.69	3.94	0.89	0.12
5. Employment barriers	3.98	3.97	3.98	3.89	0.01*	0.24
6. Relocate job opportunity	3.98	3.97	3.98	3.89	0.01*	0.24
7. Geographical immobility job opportunity	14.94	14.74	14.61	14.89	0.73	0.01
8. Family immobility job opportunity	3.86	3.75	3.81	3.67	0.46	0.01

Source: Survey (2023)

Table 5-29 shows that statistically significant differences exist between employment barriers, relocation for job opportunities and age of a person. It is clear that between 46 years and older experience less employment barriers than those between the other age groups. Therefore, younger people less than 45 years to 18 years' experience higher employment barriers. Miller and Porter (2007) found that in the job market, young people without post-secondary education or vocational certificates confront significant challenges. Young people were the first to suffer from the recession, even though they gained from the robust 1990s economy. In some instances, young workers should anticipate lower real incomes than those attained in previous decades, even if they are able to obtain employment. No statistically significant differences exist between career mismatch, traveling immobility, location stability, skills mismatch, geographical immobility, family immobility and age of a person. Carling (2002) found that there is not statistically significant evidence that the "*Decisions to stay tend to be cumulative as they encourage local investment and increase the likelihood of others making the same decision*". Furthermore, the study also

found that “Young adults have fewer responsibilities which discourage relocation. Potential gains from emigration as an investment decline with age” (Carling, 2002). Which joins with the factors leading to labour immobility.

The ANOVA differences in dependent variables and race are given in Table 5-30 below.

**Table 5-30: Difference in Dependant Variables based on Race**

Item	Black/African	White	Coloured	Indian	$p$	Partial Eta Squared
1. Career mismatch / concerns	7.67	7.25	7.64	7.78	0.04*	0.04
2. Traveling immobility	3.87	3.63	3.76	4.00	0.03*	0.04
3. Location stability	4.75	4.57	4.64	5.00	0.46	0.1
4. Skills mismatch	3.69	3.48	3.64	3.89	0.20	0.02
5. Employment barriers	3.98	3.93	3.97	4.00	0.52	0.01
6. Relocate job opportunity	3.98	3.93	3.97	4.00	0.08	0.03
7. Geographical immobility job opportunity	14.95	14.74	14.62	14.89	0.00*	0.79
8. Family immobility job opportunity	3.86	3.75	3.81	3.67	0.56	0.01

Source: Survey (2023)

Inspection of Table 5-30 above shows that there is a statistically significant relationship between career mismatch/concerns, traveling immobility, geographical immobility and race. Indian people experience higher career mismatch/concerns as well as travelling immobility than black, white and coloured groups. There isn't any other study that could support this outcome. Therefore, there is seemingly another pathway to investigate why do Indian groups experience higher levels or career mismatch/concern and higher levels of travelling immobility. According to Taweel (2018) race matters for social outcomes indicating that there are enduring disparities in salaries, employment, homeownership, crime, and health outcomes between racial and ethnic groups.

Therefore, according to City Insight (2018) the research found that workers who have more or fewer skills than what is needed for their jobs are said to be in a skills mismatch. High and ongoing levels of skills mismatch have detrimental effects on people's lives as well as the economy and society at large. They also have a large financial and social cost. Mismatches in skills can be caused by educational backgrounds, certifications, or even both. Furthermore, black people experience higher family immobility than coloured group of the population who experience less than the other groups of people.

In Table 5-31 ANOVA differences in dependant variables and marital status are discussed. It is clear that single/unmarried, married, divorced/separated, widowed experience statistically lower scores than those who do not prefer to say their marital status and scores for employment barriers as well as for relocation barriers.

**Table 5-31: Difference in Dependant Variables based on Marital Status**

Item	Single / unmarried	Married	Divorced or separated	Widowed	Prefer not to say	<i>p</i>	Partial Eta Squared
1. Career mismatch / concerns	7.62	7.56	7.36	7.50	8.00	0.83	0.01
2. Traveling immobility	3.85	3.72	3.91	3.75	4.00	0.31	0.02
3. Location stability	4.72	4.62	5.09	4.50	4.50	0.60	0.02
4. Skills mismatch	3.60	3.66	4.00	3.50	3.50	0.36	0.02
5. Employment barriers	3.98	3.99	3.82	3.75	4.00	0.01*	0.06
6. Relocate job opportunity	3.98	3.99	3.81	3.75	4.00	0.01*	0.06
7. Geographical immobility job opportunity	14.98	14.58	14.00	15.00	16.00	0.41	0.03
8. Family immobility job opportunity	3.83	3.73	3.64	4.00	4.00	0.42	0.02

Source: Survey (2023)

Table 5-32 show the ANOVA difference for dependant variables and dependants at a household.

**Table 5-32: Difference in Dependant Variables based on Dependants in a household**

Item	1	2	3	4	5	6	7	8	12	p	Partial Eta Squared
1. Career mismatch / concerns	7.32	7.46	7.57	7.57	7.91	7.80	8.00	7.00	7.84	0.12	0.06
2. Traveling immobility	3.81	3.67	3.85	3.68	3.81	4.00	4.00	4.00	3.95	0.19	0.05
3. Location stability	4.84	4.56	4.74	4.71	4.62	4.60	5.50	3.50	4.71	0.43	0.04
4. Skills mismatch	3.38	3.61	3.87	3.64	3.90	3.80	4.00	4.00	3.45	0.01*	0.09
5. Employment barriers	3.92	3.98	3.96	4.00	4.00	4.00	3.50	4.00	4.00	0.03*	0.07
6. Relocate job opportunity	14.95	15.06	14.78	15.57	15.33	11.20	17.50	17.00	15.76	0.56	0.03
7. Geographical immobility job opportunity	14.59	14.39	14.87	14.64	14.95	14.60	13.50	14.50	15.50	0.11	0.06
8. Family immobility job opportunity	3.89	3.74	3.76	3.68	3.71	3.80	3.50	3.50	3.92	0.53	0.03

Source: Survey (2023)

It is clear from Table 5-32 above that skills mismatch, employment barriers show statistically significant differences with dependants in a household. Those with seven to eight dependants show higher skills mismatch than the other levels. Those with seven dependants in a household experience less employment barriers than the other levels.

## 5.8 REGRESSION ANALYSIS

Next, a series of multiple regressions were performed. Multiple regression was utilised to investigate the antecedent/causes of various factors on immobility outcomes, such as travel immobility, relocation immobility, geographical immobility, geographical immobility, and family

immobility. Models that predict immobility based on antecedent/causes variables such as career mismatch, location stability, skills mismatch, employment barriers and demographical variables of the study population.

Table 5-33 below shows the results of multiple regression analysis, with travel immobility as predictor and career mismatch, location stability, skills mismatch, employment barriers and demographical variables. As seen in Table 5-33, the entry of a mismatch of career skills as a cause/antecedent of Travel Immobility at the first step of regression analysis produced no statistically significant model ( $F_{(1,233)}=2.82$ ;  $p<0.00$ ), accounting for approximately 0.01% of the total variance and therefore in Model 1 mismatch of career skills do not predict travel immobility. In the second step of the regression analysis, location stability was entered. Location stability added at this step did not contribute statistically significantly to the model ( $F_{(1,232)}=2.98$ ;  $p<0.00$ ). In Model 3, adding skills mismatch resulted in a statistical increase in the variance prediction in travelling immobility ( $F_{(1,233)}=2.31$ ;  $p<0.00$ ), accounting for 4.09% of the total variance. More specifically, it seems that a positive relationship exists between travel immobility and skills mismatch ( $\beta=0.12$ ;  $t=2.48$ ;  $p<0.01$ ), indicating that skills mismatch decreases as travel immobility increases.

In Model 4, adding employment barriers, the model accounts for 0.05% of the variance in travel immobility and is a significant fit for the data ( $F_{(1,230)}=3.13$ ;  $p<0.00$ ). Only skills mismatch predicts travel immobility and career mismatch, location stability and employment barriers did not predict travel immobility. Regarding Model 5, adding demographical variables did not contribute to any statistical significance. Only skills match predicts travel immobility. The data found no multicollinearity; the VIF values are below 10, and the tolerance values are above 2. The model seems to be reasonably reliable.

**Table 5-33: Multiple Regression Analysis with Travel Immobility as Dependent Variable**

Coefficients <sup>a</sup>										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	F	R	R <sup>2</sup>	Δ R <sup>2</sup>
		B	Std. Error	Beta						
1	(Constant)	3.324	.285		11.655	2.82	2.82	0.11	0.01	0.01
	Career mismatch	.063	.037	.109	1.679					
2	(Constant)	3.072	.318		9.663	2.98	2.98	0.16	0.03	0.02
	Career mismatch	.056	.037	.098	1.508					
	Location stability	.064	.036	.115	1.765					
3	(Constant)	2.726	.344		7.929	4.09	4.09	0.22	0.05	0.04
	Career mismatch	.051	.037	.089	1.374					
	Location stability	.050	.036	.090	1.377					
	Skills mismatch	.124	.050	.162	2.482					
4	(Constant)	3.061	.711		4.304	3.13	3.13	0.05	0.04	0.48
	Career mismatch	.052	.037	.091	1.398	.163				
	Location stability	.049	.037	.088	1.347	.179				
	Skills mismatch	.127	.050	.165	2.517	.013				
	Employment barriers	-.087	.162	-.035	-.538	.591				
5	(Constant)	3.524	.746		4.727	0.03*	1.94	0.32	0.10	0.05
	Career mismatch	.045	.038	.078	1.173	.242				
	Location stability	.058	.037	.104	1.564	.119				
	Skills mismatch	.127	.051	.165	2.488	.014*				
	Employment barriers	-.074	.166	-.029	-.442	.659				
	Age group	-.007	.044	-.012	-.148	.882				
	Gender	-.061	.065	-.064	-.946	.345				
	Race	-.072	.041	-.142	-1.744	.083				
	Language	-.032	.017	-.156	-1.904	.058				
	Marital Status	-.017	.050	-.026	-.338	.736				
	Living status	.012	.045	.019	.272	.786				
	Dependents	.013	.010	.100	1.410	.160				
	Household contribution	-.063	.041	-.111	-1.532	.127				

Total Gross Income	-0.14	.016	-0.062	-0.862	.390				
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a. Dependent Variable: Travel immobility  
Source: Survey (2023)

Table 5-34 below are the results of multiple regression analyses, with relocation immobility as the dependent variable and career mismatch, location stability, skills mismatch and employment barriers as independent variables.

**Table 5-34: Multiple Regression Analysis with Relocation Immobility as Dependent Variable**

		Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	F	R	R <sup>2</sup>	Δ R <sup>2</sup>
		B	Std. Error	Beta						
1	(Constant)	13.878	2.514		5.521	0.627	0.24	0.32	0.00	-0.00
	Career mismatch	.160	.329	.032	.487	.627				
2	(Constant)	9.645	2.752		3.505	0,00	5.97	0.22	0.05	0.04
	Career mismatch	.053	.323	.011	.163	.870				
	Location stability	1.076	.315	.220	3.418	0,001*				
3	(Constant)	11.417	3.002		3.803	0.00	4.71	0.24	0.06	0.05
	Career mismatch	.081	.323	.016	.250	.803				
	Location stability	1.148	.318	.235	3.612	0,001*				
	Skills mismatch	-.637	.437	-.095	-1.458	.146				
4	(Constant)	7.702	6.207		1.241	.0.01	3.64	0.244	0.06	0.04
	Career mismatch	.069	.324	.014	.213	.831				
	Location stability	1.159	.319	.237	3.637	<0,001*				
	Skills mismatch	-.664	.439	-.099	-1.512	.132				
	Employment barriers	.970	1.418	.044	.684	.495				
5	(Constant)	13.166	6.446		2.043	.0.00	2.47	0.36	0.13	0.08
	Career mismatch	-.017	.330	-.003	-.052	.959				
	Location stability	1.082	.320	.221	3.386	<,001*				
	Skills mismatch	-.375	.442	-.056	-.848	.397				
	Employment barriers	.033	1.438	.002	.023	.982				
	Age group	-.970	.382	-.199	-2.542	.012*				

Gender	-.204	.561	-.024	-.365	.716				
Race	.075	.356	.017	.210	.834				
Language	.146	.144	.082	1.017	.310				
Marital Status	-.205	.433	-.035	-.473	.637				
Living status	-.369	.385	-.068	-.958	.339				
Dependents	.025	.082	.021	.303	.762				
Household contribution	.382	.353	.078	1.083	.280				
Total Gross Income	.021	.143	.010	.144	.885				

a. Dependent Variable: Relocation mobility

Source: Survey (2023)

The results in Table 5.34 indicate in Model 1 that skills mismatch did not predict relocation immobility. In Model 2 adding location stability increases the prediction of variance in relocation immobility ( $F_{(1,233)}=5.97$ ;  $p<0.00$ ). The adjusted  $R^2$  (0.041) show some shrinkage from the unadjusted value (0.048) indicating that the model may not generalises well. Taken together in Model 3, it seems that significant predictor of positive relocation mobility is location stability ( $\beta=1,148$ ,  $t=3,61$ ,  $p<0,00$ ). VIF values are below 10, or alternatively tolerance values are well above 0,2, indicating no multicollinearity in the data. Model 3 looks reliable. In Model 4 it seems that career mismatch, skills mismatch and employment barriers did not predict relocation immobility, but location stability predict relocation immobility. In Model 5 adding demographical variables, the model accounts for 36% of the variance in relocation immobility. In Model 5 location stability and age of a person predict relocation immobility.

**Table 5-35: Multiple Regression Analysis with Geographical immobility as dependent variable**

Model		Coefficients <sup>a</sup>								
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	F	R	R <sup>2</sup>	$\Delta R^2$
B	Std. Error	Beta								
1	(Constant)	6.351	.775		8.189	<,001	119.55	0.58	0.341	0.34
	Career mismatch	1.111	.102	.584	10.934	<,001*				
2	(Constant)	5.921	.868		6.819	<,001	60.43	0.59	0.34	0.34
	Career mismatch	1.100	.102	.578	10.783	<,001*				
	Location stability	.109	.099	.059	1.099	.273				

3	(Constant)	5.305	.947		5.603	<.001	41.41	0.59	0.35	0.34
	Career mismatch	1.091	.102	.573	10.710	<.001*				
	Location stability	.084	.100	.046	.842	.400				
	Skills mismatch	.220	.138	.086	1.600	.111				
4	(Constant)	4.107	1.956		2.100	.037*	31.12	0.59	0.35	0.34
	Career mismatch	1.087	.102	.571	10.647	<.001*				
	Location stability	.088	.100	.047	.875	.383				
	Skills mismatch	.212	.138	.083	1.529	.128				
	Employment barriers	.313	.447	.038	.701	.484				
5	(Constant)	5.208	2.064		2.523	.012*	10.50	0.62	0.38	0.35
	Career mismatch	1.055	.105	.555	10.026	<.001*				
	Location stability	.110	.102	.059	1.075	.283				
	Skills mismatch	.201	.141	.079	1.429	.154				
	Employment barriers	.271	.459	.032	.590	.556				
	Age group	.094	.122	.051	.771	.442				
	Gender	.036	.187	.011	.195	.846				
	Race	-.218	.115	-.128	-1.887	.061				
	Language	-.062	.046	-.092	-1.348	.179				
	Marital Status	-.063	.139	-.029	-.454	.651				
	Living status	-.134	.123	-.065	-1.086	.279				
	Dependents	.030	.026	.067	1.127	.261				
	Household contribution	.053	.113	.028	.470	.639				
	Total Gross Income	-.066	.046	-.087	-1.438	.152				

a. Depende Geographical immobility

Source: Survey (2023)

Table 5-35, the first step of the regression analysis produced a statistically significant model ( $F_{(1,231)}=119.55$ ;  $p<0.00$ ), accounting for 34% of the variance. More specifically career mismatch predicts positive geographical immobility. Furthermore, all the Models 2 to 5 indicate that the only independent variable career mismatch predict geographical immobility. All the VIF values of the variables in Model 1 to Model 4 are below 10 or, alternatively tolerance, values are well above 0,2, indicating no multicollinearity in the data.

**Table 5-36: Regression Analysis for Family Immobility as dependent variables**

Model		Unstandardized Coefficients		Standardized Coefficients Beta	Coefficients <sup>a</sup>					
		B	Std. Error		t	Sig.	F	R	R <sup>2</sup>	Δ R <sup>2</sup>
1	(Constant)	3.147	.310		10.169	0.39	4.30	0.16	0.02	0.01
	Career mismatch	.084	.041	.135	2.074	.039*				
2	(Constant)	2.836	.344		8.234	0.016	4.19	0.19	0.04	0.03
	Career mismatch	.076	.040	.123	1.886	.061				
	Location stability	.079	.039	.130	2.005	.046*				
3	(Constant)	3.246	.372		8.729	0.001	5.32	0.26	0.07	0.05
	Career mismatch	.083	.040	.133	2.064	.040*				
	Location stability	.095	.039	.158	2.426	.016*				
	Skills mismatch	-.147	.054	-.176	-2.711	.007*				
4	(Constant)	2.892	.768		3.764	0.003	4.05	0.26	0.07	0.05
	Career mismatch	.081	.040	.131	2.031	.043*				
	Location stability	.096	.039	.159	2.445	.015*				
	Skills mismatch	-.149	.054	-.179	-2.743	.007*				
	Employment barriers	.092	.175	.034	.527	.599				
5	(Constant)	3.002	.805		3.731	0.005	2.40	0.35	0.13	0.07
	Career mismatch	.057	.041	.092	1.394	.165				
	Location stability	.099	.040	.163	2.488	.014*				
	Skills mismatch	-.167	.055	-.200	-3.037	.003*				
	Employment barriers	.148	.179	.054	.829	.408				
	Age group	.044	.048	.072	.917	.360				
	Gender	.112	.073	.102	1.535	.126				
	Race	-.055	.045	-.098	-1.215	.226				
	Language	-.008	.018	-.038	-.468	.640				
	Marital Status	.006	.054	.008	.103	.918				
	Living status	.003	.048	.004	.054	.957				
	Dependents	.000	.010	.003	.037	.971				
	Household contribution	.002	.044	.003	.038	.970				
	Total Gross Income	-.058	.018	-.232	-3.226	.001*				

a. Dependent Variable: Family immobility

Source: Survey (2023)

Model 1 as the first step of the regression analysis produced a statistically significant model ( $F_{(1,231)}=4.30$ ;  $p<0.00$ ), accounting for 2% of the variance. It seems that career mismatch ( $\beta=0,084$ ,  $t=2.07$ ,  $p<0,00$ ) predict positive family immobility. The adjusted  $R^2$  (0.014) show a minor shrinkage from the unadjusted value (0.018), indicating that the model might not generalise well. Model 2 accounts for 4% if the variance in family immobility and is significantly fit for the data ( $F_{(1,230)}=4.19$ ;  $p<0.00$ ). Career mismatch and location stability predicts family immobility. In Model 3 of the regression analysis, skills mismatch was entered. Skills mismatch added to contributes statistically significance to the model ( $F_{(1,229)}=5.32$ ;  $p<0.00$ ), accounting for 7% of the total variance. Career mismatch ( $\beta=0,133$ ,  $t=2.07$ ,  $p<0,00$ ), location stability ( $\beta=0,158$ ,  $t=2.43$ ,  $p<0,00$ ) predict positive immobility and skills mismatch ( $\beta=-0,176$ ,  $t=-2.71$ ,  $p<0,00$ ) predict negative family immobility. Model 4 of the regression analysis employment barriers was entered. Employment barriers did not no statistically significance to the model ( $F_{(1,231)}=4.05$ ;  $p<0.00$ ) and account for 7% of the total variance. Career mismatch ( $\beta=0,131$ ,  $t=2.03$ ,  $p<0,00$ ), location stability ( $\beta=0,159$ ,  $t=2.45$ ,  $p<0,00$ ) predict positive immobility and skills mismatch ( $\beta=-0,179$ ,  $t=-2.74$ ,  $p<0,00$ ) predict negative family immobility. Model 5 accounts for 7% of the variance in family immobility. In Model 5 demographical variables was added only total gross income added statistically significant to the model. Location stability, skills mismatch and total gross income predict family immobility.

## 5.9 SYNOPSIS

In this chapter statistical analysis was reported and interpret on the survey data. The first part of the chapter (Section 5.2 and 5.3.1 ) focus on the demographical and immobility of the sample and answer the objective *To determine the relationship between the various factors (Chapter 5 and 6)* set in Chapter 1. As seen from the descriptive analysis of the data is clear that the data provided presented the frequencies and percentages of various demographical characteristics within the sample.

The findings of the sample are categorized based on age, gender, race, language proficiency, marital status, living status, number of dependents, household contribution, and total gross income. For instance, in the age category, the largest proportion falls within the 26-35 age range, constituting 45.1% of the sample, followed by the 18-25 age group at 25.1%. Regarding gender, the majority are female (67.2%), while males account for 31.1%. The racial distribution shows a significant representation of Black/African individuals (46.8%), followed by Coloured (30.6%), White (18.7%), and Indian (3.8%). Language proficiency indicates that English is the most common language (32.8%), followed by Afrikaans (28.5%). Marital status reveals that a

substantial portion is single/unmarried (51.5%), and in terms of living status, a significant proportion is married or living with a partner (46.0%). The data also provides insights into the distribution of dependents, household contribution, and total gross income, offering a comprehensive overview of the demographical composition of the analysed sample.

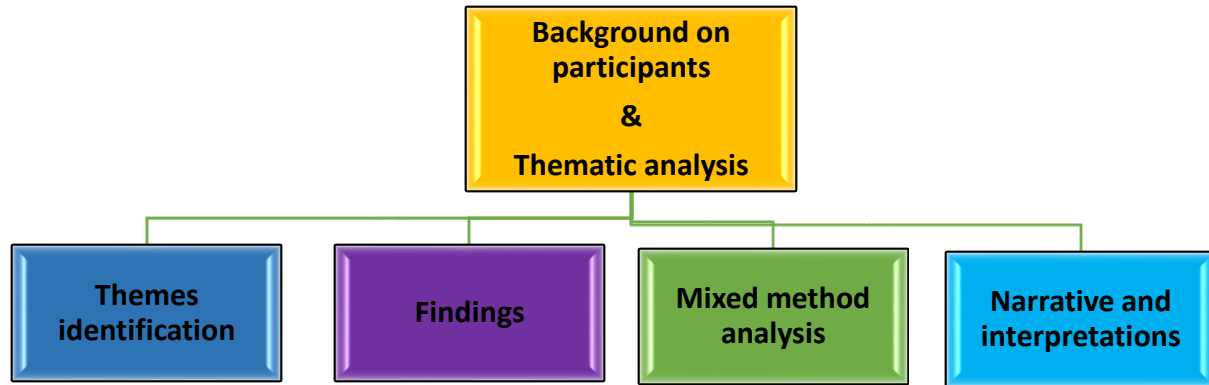
The findings reveal a statistically significant relationship between career mismatch/concerns, traveling immobility, regional immobility, and race. Indians have more career mismatches/concerns and travel immobility than black, white, and colored persons. There is no other study that could support this conclusion. As a result, there appears to be another avenue to study why Indian groups report higher degrees of career mismatch/concern and higher levels of travel immobility. However, the data suggests that racial differences exist in certain dependent variables, particularly in areas related to career concerns, traveling immobility, willingness to relocate for job opportunities, and geographical immobility concerning job opportunities.

Furthermore, the data indicates that the number of dependents in a household is associated with variations in certain dependent variables, particularly in areas such as career concerns, traveling immobility, skills mismatch, and employment barriers. These findings can provide valuable insights for understanding and addressing specific challenges or concerns within different racial groups, age, households and marital status in the context of employment and career-related factors.

## CHAPTER 6: RESULTS AND FINDINGS

### QUALITATIVE AND MIXED METHOD ANALYSIS ON THE ANTECEDENTS OF GRADUATE LABOUR IMMOBILITY

*“Phenomenology is not only a description but it is also an interpretive process in which the researcher makes an interpretation of the meaning of the lived experiences.” — John W. Creswell*



**Figure 6-1: Framework chapter six**

Source: Compilation by the author

### 6.1 INTRODUCTION

This chapter aims to analyse the qualitative data and discusses the findings of the qualitative empirical research undertaken. Furthermore, the chapter provides a detailed analysis on the qualitative examination of the data gathered from the interviews. The analysis was carried out thematically, allowing the qualitative study's findings to be integrated, compared, and accurately presented. As a result, the qualitative analysis of the interviews is given as a theme-by-theme study. In addition, many sub-themes relating to the primary research were found and discussed. Thereafter, it will analyse the mixed method relationship consisting of both the quantitative data analysis as discussed in Chapter 5 and the qualitative data analysis as discussed in more detail in Chapter 6.

#### 6.1.1 Background on the participants

The qualitative data were obtained through in-depth interviews with 21 individuals: 13 women and 8 men. Recruitment for the qualitative sample was selected via a convenience sampling

approach. The study used several recruitment strategies including using informal and professional networks and connections and those who are willing agreed to be part of phase two of the study. The study utilised semi-structured interviews which covered topics of geographical (im)mobility, occupational (im)mobility and skills (im)mobility and their current work and skills sets, factors behind moving or not moving in their respective regions, provinces and other countries, perceptions of family and personal life in South Africa, and their perspectives on future mobility outlook. All interviewees gave consent prior to the interviews. All participants were graduates and skilled participants in their field of employment living and working in South Africa.

**Table 6-1: Participant profiling and interview schedules**

Participant profiling and interview schedule							
Participant Number	Interview Time	Interview Date	Place of interview	Gender	Qualification	Field of work	Period of unemployment
1	9:00 - 09:30	2023-10-05	Teams	Female	NQF Level 7 in Film & Television production	Administrative	7 months
2	10:00 - 10:30	2023-10-06	Teams	Female	B.A. in psychology and sociology	Administrative	None
3	11:00 - 11:30	2023-10-06	Teams	Male	Masters in economics	Industry Research analyst	6 months
4	09:30 - 10:00	2023-10-13	Teams	Male	NQF Level 7 Electrical Engineering HC	Electrical Engineering	1-3 years
5	9:00 - 09:30	2023-10-08	Teams	Female	Honours in Risk Management	Risk Manager	3 months
6	12:00 - 12:30	2023-10-08	Teams	Female	Honours in Economics	Analyst Financial Institution	6 months
7	11:00 - 11:30	2023-10-11	Teams	Female	Masters in Economics	Tertiary Education, Academia	None
8	13:00 - 13:30	2023-10-12	Teams	Male	Post-Doc in Economics	Post-Doc Fellowship, Academia	1 year
9	12:00 - 12:30	2023-10-11	Teams	Female	BCom in Chartered Accounting	Cost Engineer	2 years
10	10:00 - 10:30	2023-10-10	Teams	Female	Masters in Economics	Lecturer, Academia	3 months
11	15:30 - 16:00	2023-10-10	Teams	Female	BEd Honours in Education	Educator, Deputy Principal	None
12	10:00 - 10:30	2023-10-16	Teams	Male	Masters in Risk Management	Bank Risk Manager	3 months
13	09:00 - 09:30	2023-10-12	Teams	Female	Honours in Psychology	Lecturer, Academia	2 years
14	11:00 - 11:30	2023-10-15	Teams	Female	BEd Honours in Education	Educator, Primary School	None
15	15:00 - 15:30	2023-10-18	Teams	Male	BEd in Education	Educator, Secondary School	None
16	9:00 - 09:30	2023-10-18	Teams	Male	Honours in Chartered Accounting	Accounting	None

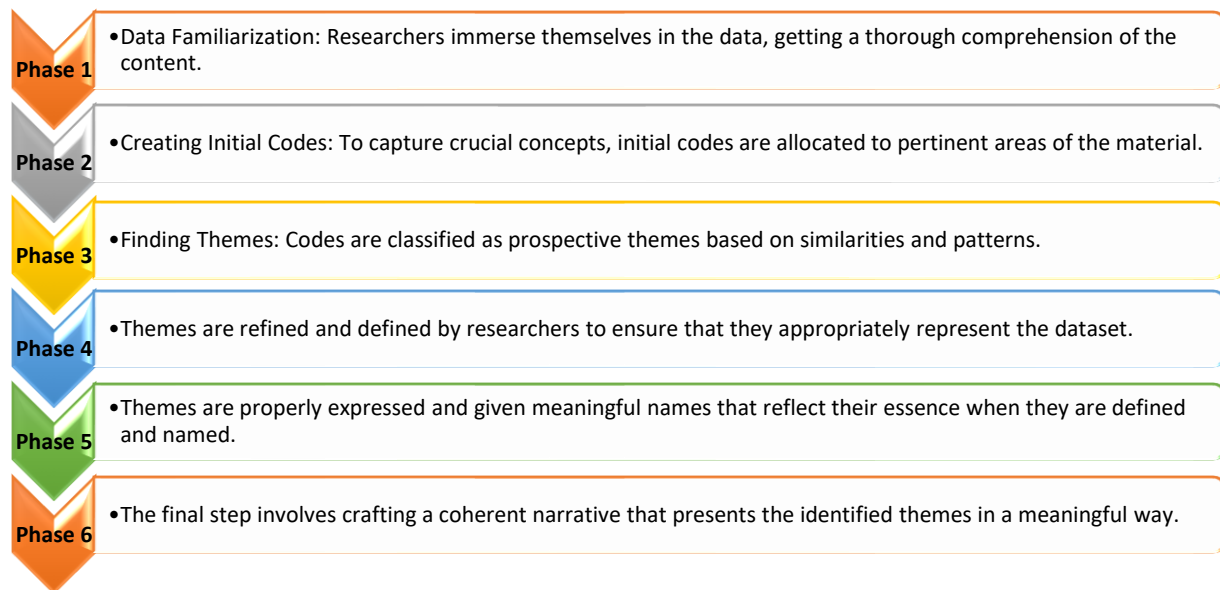
17	10:00 - 10:30	2023-10-21	Teams	Female	Honours in Risk Management	Post Graduate Student	1 year
18	16:00 - 16:30	2023-10-16	Teams	Female	BEd in Education	Department of Education	0
19	14:00 - 14:30	2023-10-14	Teams	Male	Honours in Public Administration	Government	0
20	9:00 - 09:30	2023-10-10	Teams	Female	BCom Economics and Econometrics	Financial corporate sector	4 years
21	10:00 - 10:30	2023-10-12	Teams	Male	BEng Mechanical	Engineering	1 month

Source: Survey (2023)

## 6.2 THEMATIC ANALYSIS

Thematic analysis is one of the most regularly used quantitative research approaches for identifying, analysing, and reporting themes in a dataset, often in the setting of paper or digital data. Thematic analysis assists scholars in gaining a thorough comprehension of the content and meaning of these data. Thematic analysis may be used in a variety of study domains, including health sciences, psychology, anthropology, sociology, and others (Terry *et al.*, 2017; Braun & Clarke, 2023). Thematic methodology offers several advantages in qualitative research. First and foremost, it provides a structured and systematic way to analyse large volumes of qualitative data (Braun & Clarke, 2019). This is particularly important in studies where the goal is to derive meaningful insights from diverse and complex datasets.

Furthermore, thematic analysis allows for a flexible and reflexive approach, enabling researchers to adapt to the evolving nature of the research question (Nowell *et al.*, 2017). The iterative process of theme development permits deeper exploration and a more nuanced understanding of the data. However, it is important to note that a thematic methodology is grounded in several key principles that guide the research process. Braun and Clarke (2006) suggested a widely recognised six-phase approach, as illustrated in Figure 6-2:



**Figure 6-2: Thematic methodology key principles**

Source: Compilation by the author

### 6.2.1 Theme identification

In order to identify themes a comprehensive exploration of data is used in qualitative analysis to find underlying patterns and themes. Thematic analysis is a popular tool for this process in qualitative data (Braun & Clarke, 2006). During the first step of data familiarization, researchers immerse themselves in the content, getting a full comprehension of the dataset. Following that, codes are generated that capture the essence of specific concepts within the data. This coding method is essential for theme identification. The codes are then grouped into prospective themes and sub-themes using a grouping technique based on similarities and trends. Thematic analysis is distinguished by the constant interaction between data and emergent ideas, stressing the iterative aspect of the process (Braun & Clarke, 2019). Table 6-2 identifies the themes and sub-themes gathered from the interview transcription process.

The main themes highlighted in the interview transcripts serve as the foundation for this study's qualitative analysis. As a result, each of the following parts analyses a core theme in terms of its sub-themes. It should be observed that there was considerable convergence in some subjects. As a result, several sub-themes were explored in more than one section because they were thought to be equally significant to the identified main topics. Despite being discussed often, these sub-themes indicate both similar and divergent viewpoints the participants had on the underlying sub-theme.

Furthermore, where applicable, each identified theme and its sub-themes were linked to existing literature on graduate labour immobility, socio-economic factors, and graduate perceptions (as outlined in Chapter 2 and Chapter 3). Furthermore, these sub-themes were analysed in such a way that the researcher was able to discover participants' motives and decision making when certain opportunities arose, future mobility perceptions, labour market integration, and other barriers that influenced the main themes identified.

**Table 6-2: Different themes identified**

<b>Themes</b>	<b>1. Geographical (im)mobility</b>	<b>2. Occupational (im)mobility</b>	<b>3. Skills (im)mobility</b>
<b>1. Sub-themes</b>	Safety and current lifestyle: safety and security and political instability	Level of education	Industry specific skills

<b>2. Sub-themes</b>	Financial constraints: employment opportunities, job market conditions, salaries	Skills sets	Education and training
<b>3. Sub-themes</b>	Family considerations: Family ties and adequate childcare and schooling	Working experience / Job title / Level of occupation	Technological skills
<b>4. Sub-themes</b>	High cost of living in destination areas	Mismatch between skills and qualifications	Soft skills
<b>5. Sub-themes</b>	Transportation infrastructure: Transportation costs, limited transportation options, distance travelling and connectivity	Labour market not conducive / labour market disparities	Language proficiency
<b>6. Sub-themes</b>	Housing market dynamics: housing affordability and limitations to rental availability	Internal migration for job opportunities / Migration	Skills mismatches
<b>7. Sub-themes</b>	Lack of access to education / Skills mismatch	Gender segregation	Experience and expertise
<b>8. Sub-themes</b>	Healthcare accessibility: healthcare disparities and health insurance cover	Ethnic or racial segregation	Labour market demand
<b>9. Sub-themes</b>	Social and cultural barriers: language and cultural differences and social networks	Wage disparities / Financial constraints: employment opportunities, job market conditions, salaries	Degree choice
<b>10. Sub-themes</b>	Brain drain and gain: Migration, visa restrictions, immigration policies	Rapid technological advancements	Qualification level

Source: Compilation by the author

## 6.3 QUALITATIVE DATA ANALYSIS

### 6.3.1 Theme 1: Geographical (im)mobility

In theme one, focus was placed on the geographical immobility of graduates, which refers to the challenges and barriers that individuals face in moving from one geographical location to another in order to find gainful employment in their fields of study. However, there seems to be various

challenges graduates face in their pursuit of different career opportunities due to their geographical immobility status and how it contributes to their daily lives.

**Table 6-3: Geographical (im)mobility interview questions**

Items	Questions
<b>Geographical (im)mobility</b>	With your current employment status are you able to move/relocate to another province/sector without experiencing any major problems? (e.g., lack of transport, lack of finances)
	(If) you relocated based on the previous question. Upon relocating were you able to find adequate housing?
	What are some of the challenges you face daily due to your employment location/ or your (b) place of residence?
	How far do you travel to work every day? And by what means do you travel. Cost estimates monthly?
	Have you ever declined/had to leave a job opportunity? If yes, why? (Due to the distance, relocation, travelling long hours, safety)

Source: Interview survey (2023)

### 6.3.2 Refining geographical (im)mobility themes and sub-themes

Table 6-4 consists of the refining of themes and sub-themes of geographical (im)mobility of graduates, due to some sub-themes identified being present across the various main themes. After carefully going through the themes the researcher could place the sub-theme in the most relevant or suitable main theme. These sub-themes consist of family considerations, transportation infrastructure, housing market dynamics, health-care accessibility and lastly social and cultural barriers. The mentioned sub-themes will be discussed in Table 6-4 followed by the participants response to each of the sub-themes identified.

**Table 6-4: Refining geographical (im)mobility themes and sub-themes**

Theme	Geographical (im)mobility
<b>1. Sub-theme</b>	Relocation and willingness to move: Safety and current lifestyle
<b>2. Sub-theme</b>	Family considerations: Family ties and adequate childcare and schooling
<b>3. Sub-theme</b>	Transportation infrastructure: Transportation costs, limited transportation options, distance travelling and connectivity
<b>4. Sub-theme</b>	Housing market dynamics: housing affordability and limitations to rental availability

Source: Compilation by the author

### 6.3.2.1 Sub-theme 1: Relocation and willingness to move – safety and lifestyle

Perceptions of safety and security can impact the willingness to move to specific areas. Furthermore, concerns pertaining to political unrest or instability in certain regions as well. Many participants made mention that their safety and security as well as their current lifestyle plays a pivotal role in their decision making when it comes to their geographical location and being able to relocate. For example, the participants indicated that:

Researcher asked: “With your current employment status are you able to move/relocate to another province/sector without experiencing any major problems?”

*Participant 1: “I did relocate to another province”...“The only challenges is the challenge in my mind that that keeps on popping up that I need to call and check if my child is safe at home.”*

*Participant 2: “I would be able to relocate to a neighbouring town”*

*Participant 3: “I would say that the options are there, given that I do work for a multinational corporation, so if I did ask, I think the opportunity is there, although I don't think it will necessarily be easy.”*

*Participant 6: “So I moved from a rural area... Township to a suburb.”*

*Participant 7: “In my own capacity, no, I won't be able to relocate”...*

*Participant 14: “Umm, because my qualification is internationally recognised, I don't think there should be any issues.” ... “Maybe if as a as a individual, it might be easier, but but it's a family... I don't think it's that easy”*

*Participant 18: “I won't have any problems because the field of studying that I am I'm an academic”*

*Participant 20: “So I I decided to stay at home because this is my first job...relocating is not feasible, if I do I would have to negotiate for the cost of moving to be covered”*

In a study conducted by Hur and Koh (2023) workers relocate to areas with more economic incentives, such as better work prospects and higher income, than their current location. However, housing costs, homeownership, and moving expenses all have an impact on their geographical mobility. This is also related to the neoclassical theory of migration which describes how economic opportunities, such as higher wages or even promotions, are essential determinants for people who are relocating to various regions (Kurekova, 2011; Todaro, 1977). Therefore, based on the premises of the condition's graduates are willing and able to move if their safety and security is not at risk. If those conditions are not beneficial or feasible to them they are most likely not to

relocate and would remain in the same place of residence until the conditions change. This is also alluded to in the push and pull factors discussed in Chapter 2 section 2.3.2< which states that push factors highlight the negative conditions in a worker's current location, such as unemployment, low wages, or appalling working conditions. These variables may encourage workers to seek jobs in different places or businesses that provide greater options for work and professional progression (Akee & Yuksel, 2018). However, pull factors, on the other hand, are the favourable conditions of a specific region or industry that attract personnel. This leads them to higher earnings, better working circumstances, or a more desired lifestyle for them as an individual or as a family unit (Blien & Suedekum, 2018). However, many other geographical immobility challenges or barriers can exist, such as financial limits which was mentioned by certain participants, a lack of information about work opportunities in other areas or provinces, and housing affordability if they do decide to move they would have to negotiate for higher wages or their employee to pay for the cost of moving and relocating closer to work.

### **6.3.2.2 Sub-theme 2: Family considerations - family ties and adequate childcare and schooling**

Individuals' decisions to relocate are influenced by family ties as well as the availability of suitable childcare and education. The strength of family relationships has a significant impact on the emotional and social components of relocating. A study by Compton and Pollak (2014) found that the perceived support network, and overall well-being, are frequently influenced by proximity to extended relatives for example participant 16 indicated that *"I had to leave my son with my mother his granny because I couldn't also still take care of him while I am at work and finding a nanny and school in a strange place was already scary, so I would travel home on weekends to be with him and the family.it it was the best decision because he was safe with gogo and taken care of"* and in addition participant 17 also indicated that *"I take care of my elderly parents, when i I am at work my aunt helps with their daily needs but when im home it is my responsibility to cook and clean for them, I also have to pay my aunt for helping out on certain days and I also pay for their medical care"* and participant 19 further states that *"My parents own a family business so that is how they take care of themselves and I help where I see a need most of the time, I also have my own financial responsibility responsibilities that I pay like a car and insurances"* and these are all factors which contribute to geographical immobility of some graduates. In support of Compton and Pollak (2014), Benzies and Mychasiuk (2009) stated that assurance and availability of high-quality childcare and education is a major concern for families with children and they are most

likely to relocate to regions that can provide them with those specific needs for example participant 14 indicated that *“we searched for our house for almost 2 years and our decision to go with this area was based on the fact we close to a hospital um a mall and there is a lot of schools as well, the house prices are expensive but it is a sacrifice we were willing to make for our future”*.

Furthermore, Waldfogel (2006) states that if a region lacks in the provision of eminence and reasonably priced childcare, schooling as well as security which is critical for supporting families, allowing parents to work while ensuring their children's educational and developmental requirements are addressed they are also unlikely to move if it won't be of benefit to their children now and future prospects an example thereof is participant 3 who states that *“...Having a newborn baby at home is already a big responsibility, now the stress of thinking who will be able to take care of the little one when we go to work will soon also dawn on us and we definitely worried about what decision we will make going forward and nursery schools in our area is quite expensive”* and participant 5 mentioned that *“Some of these positions you might find out they are in remote areas and even though it'll be beneficial towards me, it'll be a disadvantage to my wife. So like just an example, their schooling facilities might not really be as conducive as we would want our child to be in that”* (Waldfogel, 2006). According to Adesina (2013) found that the safety and security of families plays a very critical role in whether they would more stay for employment in a specific region and which push and pull factors will they base their decision on.

However, Thomassen (2021) similarly found that the study of family relationships and mobility behaviour discovered that being close to family enhances the likelihood of staying and returning, while decreasing the tendency to migrate or even relocate within the borders of their country. Therefore in terms of safety and security participant 1 indicated that *“...I need to call and check if my child is safe at home”* as well as participant 13 indicated that *“My husband and I are living comfortably, mm so I I would not like to inconvenience him by moving closer to my job but uhm then he has the stress of also travelling to to our business every day and his safety and health is much more of importance to me now”*

Therefore, family considerations are a key component around which individuals deliberate when considering a relocation, as they seek to balance the emotional and practical difficulties of uprooting and creating a new family life in a new area. In addition, investments in family-friendly policies, such as inexpensive and high-quality childcare and accessible schooling options, contribute to community resilience and cohesiveness (Desai *et al.*, 1989; Hemerijck, 2020).

### **6.3.2.3 Sub-theme 3: Transportation infrastructure - Transportation costs, limited transportation options, distance travelling and connectivity**

Perceptions on transportation infrastructure also plays a very important role in graduates' choice and selection of employment opportunities due to certain reasons. Inadequate or expensive transportation infrastructure can hinder mobility. Furthermore, the geographical distance between location of residence and where participants resides and the lack of efficient transportation connections where they struggle to gain access to local transportation is also a costly practice daily as participant 1 indicated that *"lack of transportation because I don't have a car"* and further illuded that *"I don't think I will be able to buy a car with with my current salary"* was one of the challenges faced when the participant relocated to another province. In addition, participant 6 also indicated that *"I had to take 3 taxis to actually get there, cause you'd have to gift from home, get a local taxi from a local taxi to you, get to Germiston and from Jansen to senton"*, *"I actually have to get late to work because we had to also in that process queue in line"*.

Banister (2008) agreed that transportation infrastructure has a significant impact on transportation costs, alternatives, and connectivity, all of which have an impact on economic activity and overall mobility of people and this may also lead to more challenges at work for certain individuals as it may impact their performance and overall well-being. Transportation systems that are efficient are critical for lowering costs connected with the movement of goods and people as indicated by participant 21 *"I spend quite a lot on petrol to travel, to work because I do stay quite far from work"*. Similarly, Fielbaum and Jara-Daz (2021) reiterated that limited mobility options, particularly in areas with insufficient public transportation or road networks, might increase reliance on private vehicles, increasing traffic congestion and environmental concerns. Therefore, the travel distance and connectivity are important elements impacting accessibility and economic development, with well-connected places often enjoying higher levels of economic activity (Levinson & Krizek, 2017).

In addition, a study conducted by Rospabe and Selod (2006) agreed that there is a physical disconnect between place of employment and your residential location (spatial mismatch). This leads to a source of long journeys travelling to work and expensive commuting costs, further in return it hinders the mobility of workers as indicated by participant 3 *"I've got a current big big problem because I do work around 140 kilometres away from home, so there's quite a big problem"*, in addition participant 4 also indicated that *"The problem with this is that now I have to travel at least 70 kilometers to work everyday, because I couldn't find employment closer to home"*

*and and I leave early and come back home late at night” as well as participant 15 “I travel 100 kilometers one way to work every day, so in total 200 kilometers a day and in heavy traffic as well many times. It is tiring and very draining on certain days”.*

Therefore, it is clear that many participants have to travel quite a distance to their workplace. Which means longer hours on the road and in some cases heavy traffic. They spend less time with their families due to the travelling constraints. Some leave early and arrive home very late at night. A large sum of their salaries is spent on fuel to travel to and from work as part of their daily commute. However, some also have the option of working remotely which makes the travelling less than usual and it is of benefit to those participants as they now use that as a form to save a little money.

#### **6.3.2.4 Sub-theme 4: Housing market dynamics - housing affordability and limitations to rental availability**

The dynamics of the housing market are intricate and involve a multitude of factors that impact rental availability and affordability of housing. Increasing construction costs, slowing wage growth, and rising property values all frequently limit the availability of affordable housing (Glaeser & Gyourko, 2005). Additionally, the lack of affordable housing can also be exacerbated by government policies like land use limitations and zoning laws (Saiz, 2010). Population growth, migration trends, and the state of the economy as a whole all have an impact on the rental availability market (Goodman, 2018).

Therefore, the issue of obtaining inexpensive rentals is exacerbated by an imbalance between housing demand and supply (Haurin *et al.*, 2013). To solve these difficulties, the government must explore comprehensive solutions that address both the supply and demand sides of the housing market, including measures to increase affordability and improve rental availability. These views were also addressed by some of the participants, such as;

*Participant 2: “I think I will be able to find adequate housing, but unfortunately the interest rates at the moment are not and it's it's just not going to be viable”*

*Participant 4: “We have been staying in our current house for over 7 years already, so we actually paying off capital of our bond now we no longer just paying off the interest rate, so we unlikely to move or sell our house, the market isn't conducive”*

*Participant 5: "My husband and I bought a a flat many years ago and we still living in the same flat for 15 years plus, it works for us as we only two people. I travel to work everyday and husband own a business locally"*

*Participant 6: "I decided to rent a house this year a it's a five room house, with just enough space for my family" "I still have to buy my own electricity and pay the water bill"*

*Participant 7: "I have considered as an option finding my own place, but for my personal circumstance it's not. It's not viable So I I decided to stay at home because this is my first job."*

*Participant 11: "I was renting, UM, a bachelor... At the back of somebody's house that was all I could afford at that moment and I also had a child to take care of and her schooling fees"*

*Participant 14: "Because I I couldn't find a a job closer to my house, but I somehow made peace with it, because the houses we looked at closer to my work and my wife's were extremely expensive and we didn't just want to settle for anything"*

*Participant 16: "I had to stay home, so that was like the biggest challenge the price of renting an apartment in the city was costly and with my salary I couldn't afford that and the cost of taxi fees travelling as well"*

*Participant 19: "The the financial strain will fall on me like finding a another place uhm finding a house that is affordable is also difficult"*

As discussed in the Section 2.6 geographical immobility of graduate perceptions, Motte-Baumvol and Bonin (2018) agreed that the differences in house prices can lead to a scarcity of affordable housing in many regions. Which makes it more difficult to find adequate housing that suits your needs. This also forces individuals to move nearer to rural areas where housing is considerably cheaper, but they might have to face both cultural as well as language barriers in the process. This is also linked to the financial constraints faced by graduates as discussed in section 2.7.4 which stated that some limits exist due to a variety of causes, such as high living costs in some areas, the lack of credit or financial resources, and high levels of debt (Chen & Juhn, 2008).

### **6.3.3 Theme 2: Occupational (im)mobility**

In theme two, the focus was on occupational (im)mobility of graduates which refers to the ability/inability of workers/graduates to switch career field(s)/studies to find gainful employment to meet the needs of industry.

**Table 6-5: Occupational (im)mobility interview questions**

Items	Questions
<b>Occupational (im)mobility</b>	What is your current job title?
	Is your job aligned to the degree/qualification you studied for? / What is your highest qualification?
	If you knew what you know now, would you have studied a different degree/course and if so, what would it be?
	In your opinion, do you have the necessary skills for your current employment?
	Do you think you need to acquire new skills?
	What is/are some of the limitations that hinders you from finding new/other employment opportunities (are you actively searching)

Source: Interview survey (2023)

### 6.3.4 Refining occupational (im)mobility themes and sub-themes

Table 6-6 consists of the refining of themes and sub-themes of occupational (im)mobility of graduates, due to some sub-themes identified being present across the various main themes. After carefully going through the various categories the researcher could place the sub-theme(s) in the most relevant or suitable main theme as illustrated in the table 6-6

**Table 6-6: Refining occupational (im)mobility themes and sub-themes**

Theme	Occupational (im)mobility
<b>1. Sub-theme</b>	Highest level of education – degree or qualification
<b>2. Sub-theme</b>	Working experience / Job title / Level of occupation
<b>3. Sub-theme</b>	Wage disparities / Financial constraints: employment opportunities, job market conditions, salaries

Source: Compilation by the author

#### 6.3.4.1 Sub-theme 1: Highest level of education – degree or qualification

A study conducted by Cappelli and Keller (2013) states that the highest level of education, as indicated by one's degree or qualification, significantly influences occupational immobility. Individuals with higher levels of education often have specialised skills and knowledge that are specific to certain careers, making them more immobile in the labour market. This immobility arises because their expertise may be less transferable across different industries or job sectors

(Cappelli & Keller, 2013). Moreover, highly educated individuals may be more selective in their job searches, seeking positions that align with their qualifications and career aspirations, leading to a narrower range of suitable opportunities (Jovanovic, 1979). This selectivity can result in increased occupational immobility as individuals wait for the right match between their qualifications and job requirements.

The majority of the participants have a NQF level nine qualifications which is equivalent to an undergraduate degree, eight of the participants holds a NQF level 8 (Honours) qualification and in addition three participants hold a NQF level 9 (Masters) qualification and only one participant holds a NQF level 10 (PhD) qualification as illustrated in Table 6-1.

Education also influences occupational immobility through the signaling effect of credentials. Higher levels of education often serve as signals of a person's ability, work ethic, and commitment to employers, impacting hiring decisions and career mobility (Rivera, 2016). However, this signaling effect may inadvertently limit occupational mobility by confining individuals to job opportunities that align closely with their educational background (Cappelli, 2015). Consequently, while education enhances employability and earning potential, it can also contribute to occupational immobility by narrowing the range of suitable job opportunities available to individuals.

#### **6.3.4.2 Sub-theme 2: Job title, working experience and skills-mismatches**

The theory of occupational immobility relates directly to work experience, job titles, and occupational levels. Individuals acquire specific skills and knowledge through work experience, which contributes to their human capital and employability, according to human capital theory (Becker, 2009) this was also reiterated in Chapter 2 section 2.2, as well as Chapter 3 section 3.1. Individuals' work experience can become highly specific when they specialize in certain positions or industries, making it difficult to shift to alternative occupations (Sullivan & Al Ariss, 2021). Job titles and occupational levels are also important in this context. Individuals who hold job titles or occupy jobs at a given level within an organization that need a precise set of skills or credentials are said to be occupationally immobile (Liu-Farrer & Shire, 2021).

*Participant 1: "I'm the school secretary, but hold a NQF Level 7 in Film & Television production"*

*Participant 2: "OK, my current job title is a senior administrative assistant and at the NW University and but my degree is actually in psychology and sociology." "So I I would*

*need at least a masters level to apply what I studied or to be able to find a job within the field that I studied and because with sociology you need to go through board exams and all sorts of levels of certification before you can actually, you know, work in that field."*

*Participant 3: "...my current one is an industry analyst at do a lot of economic analysis, which is related to my current degree masters in economics"... "If I could study a different degree I'd probably study something in an IT field"*

*Participant 4: "Umm I'm I'm currently I am senior electrical artisan, however, prior to this employment I was a driver with a NQF Level 7 Electrical Engineering HC qualification, I couldn't find any other suitable jobs so I had to take this driver job"... I was employed, I think a six years later, after I actually studied, so I had to take what I get...now im currently employed for six years with my current employer within my field of study and I also took on a new degree BsC in IT which I will be completing this year"*

*Participant 5: "Im a risk manager, but if I could I would have studied a different degree and I think it would have been more with regards to the financial and accounting degree"*

*Participant 6: "I signed a four year contract, however, if you you want to move and you move into a different company, that company would have to buy you out because they have taken, umm, they're taking graduates on a permanent position as endless and then they must grow within the bank or within the financial institution."*

*Participant 7: "I am a lecturer and not seeking any other job opportunities right now. I also wouldn't have studied anything else I am happy with my degree and skills set"*

*Participant 8: "I am a post-doctoral candidate in economics, it's very difficult to to find work if you don't have enough contacts'..." So if if I have to apply for a job as a white male and someone else with the same degree as me as a black female... If if she applies for the job, who do you think will get it? Obviously she will and that makes it so much more difficult to find any employment in our country"*

*Participant 9: "A contractor as a cost controller"... "I've never worked in a PO accounting. A pure financial environment with my degree"... "The fact that I am never did my articles so it it limits. The the level that I can reach in finance. Umm yeah, I I did my CA undergrad degree but never did any post-grad qualification because I started working immediately after graduating and I needed to take care of my family as well"*

The study found that many of the participants' degrees and qualifications are not necessarily related to their job title and level of experience. Some indicated that they would either have to obtain a masters degree before they can practice in their field of study or on the other hand someone would have to complete their articles to remain in a financial based environment. Due to some of these limitations they end up working in fields that have no relation to their educational qualifications. Furthermore, discrimination in terms of gender as well race also plays a big role as to finding adequate employment in their fields of study. However, those who studied in the field of education and accounting seem to find employment easier and within their field (Plant *et al.*, 2019). As shown in table 6-7 below, this view is supported according to a research based on BusinessTech (2017), education is the most popular field of study in the country, followed by the following areas: Business, Economics, and Health (Engineering is fourth, but it is getting closer to Health than ever before).

**Table 6-7: South African graduates most studied degrees**

Field of education	Statistics	Black African	Coloured	Indian / Asian	White	Total
<b>Agriculture, Agricultural Operations &amp; Related Sciences</b>	Number	23 594	1 673	1 602	33 578	<b>60 447</b>
	Per cent	39.0	2.8	2.7	55.6	
<b>Architecture and the Build Environment</b>	Number	13 634	2 143	3 101	23 011	<b>41 890</b>
	Per Cent	32.6	5.1	7.4	54.9	
<b>Arts (Visual and Performing ARTS)</b>	Number	9 463	2 143	1 160	17 386	<b>30 152</b>
	Per cent	31.4	7.1	3.9	57.7	
<b>Business, Economics and Management Sciences</b>	Number	207 365	27 665	8 965	172 725	<b>436 719</b>
	Per Cent	47.5	6.3	6.6	39.6	
<b>Communication, Journalism and Related Studies</b>	Number	27 750	3 299	3 316	22 701	<b>57 065</b>
	Per cent	48.6	5.8	5.8	39.8	
<b>Computer and Information Sciences</b>	Number	58 434	6 356	9 432	38 654	<b>112 875</b>
	Per cent	51.8	5.6	8.4	34.2	
<b>Education</b>	Number	315 095	35 087	24 100	128 815	<b>503 096</b>
	Per cent	62.6	7.0	4.8	25.6	
<b>Engineering</b>	Number	99 848	9 587	14 139	95 433	<b>219 007</b>
	Per cent	45.6	4.4	6.5	43.6	
<b>Health Professions and related clinical sciences</b>	Number	105 785	15 333	17 438	82 764	<b>221 121</b>
	Per cent	47.8	6.8	7.9	37.4	
	Number	4 634	889	1 065	5 954	<b>12 542</b>

<b>Family Ecology and Consumer Sciences</b>	Per cent	37.0	7.1	8.5	47.5	
<b>Languages, Linguistics or Literature</b>	Number	6 240	550	1 116	12 568	<b>20 474</b>
	Per cent	30.5	2.7	5.5	61.4	
<b>Law</b>	Number	46 759	7 151	7 153	42 709	<b>103 772</b>
	Per cent	45.1	6.9	6.9	41.2	

Source: BusinessTech, 2017

Therefore, many industries' hierarchical structures may impede mobility since moving between occupational levels often necessitates a different skill set or level of knowledge or in some instances a different qualification or degree to meet the labour markets demand at a specific period (Liu-Farrer *et al.*, 2021). However, occupational immobility is linked to the concept of job-specific human capital. Whereby, some individuals who spend time and effort learning skills and information related to their current work may find it difficult to transfer these skills to another occupation (Becker, 2009). This job-specific human capital can also lead to a type of "path dependence," in which people are bound by their previous work experiences and face difficulties moving to new occupations (Tverdostup & Paas, 2022).

**6.4.3.3 Sub-theme 4: Wage disparities and financial constraints**

Wage disparities often contribute to financial constraints, impacting individuals and households. The existence of wage gaps between different demographic groups, such as gender and ethnicity, can lead to unequal earning opportunities (Rotman & Mandel, 2023). This can result in financial challenges for those who earn lower wages, limiting their ability to meet basic needs and hindering their overall financial well-being (Mishel & Bivens, 2021) participant 1 indicated that *“NWU is currently the lowest paying university and when I compared my dummy slip” ... “For the first couple of months, I could say that I was living from hand to mouth” “I also can’t afford a car with my current salary”*. Financial constraints arising from wage disparities may also perpetuate socioeconomic inequalities, as individuals with limited financial resources may face barriers to accessing education, housing, and healthcare, further entrenching disparities in opportunities and outcomes. Therefore, participant 18 indicates that *“UM, OK, not with, not with the salary that I get. I won't be able to to find the perfect place to stay in, cover all my expenses pay for petrol so I have other things to pay as well.”* And also participant 14 indicated that *“Umm, I think the limitation to applying for a new job the first one would be salary based. It's it's difficult to find a the current position that I'm doing offering the same amount of money”*.

A study conducted by Triventi (2023) found that financial constraints can aggravate wage disparities. Individuals experiencing financial difficulties may face difficulty in furthering their education or learning skills that would improve their employability and earning potential as indicated by participant 9 *“I think my issue that stage was, umm, the accounting firms around my area. Uh did not offer a lot for completing your article, so it it put me a bit off and I started working in other fields that offered more money”*. However, for participant 6 the experience was different, which indicated that *“So my salary expectation entry level was like 18,000, right? So to my surprise, actually I had gotten more than that, but my net, my net. However, it became way more than that, which was a shocker, but yeah, so that's how I got to like grow cause this is where I am is currently not my first. I use to work for far less money which basically just covered small necessities”*. Furthermore, limited finances may limit their ability to invest in professional development or participate in training programs, exacerbating the salary differences they face (Carneiro *et al.*, 2019). In order to foster economic fairness, policymakers and organizations must address both salary gaps and financial constraints. Policies that assure fair pay and provide support mechanisms to reduce financial restrictions can help to create a more inclusive and equitable society.

### **6.3.3 Theme 3: Skills (im)mobility**

In theme three, the focus was on skills (im)mobility which refers to the situations where certain skills are not easily transferable or applicable in different contexts. This might be due to industry-specific knowledge, highly specialized skills, or skills that are not in demand in other sectors.

Table 6-7: Skills (im)mobility interview questions

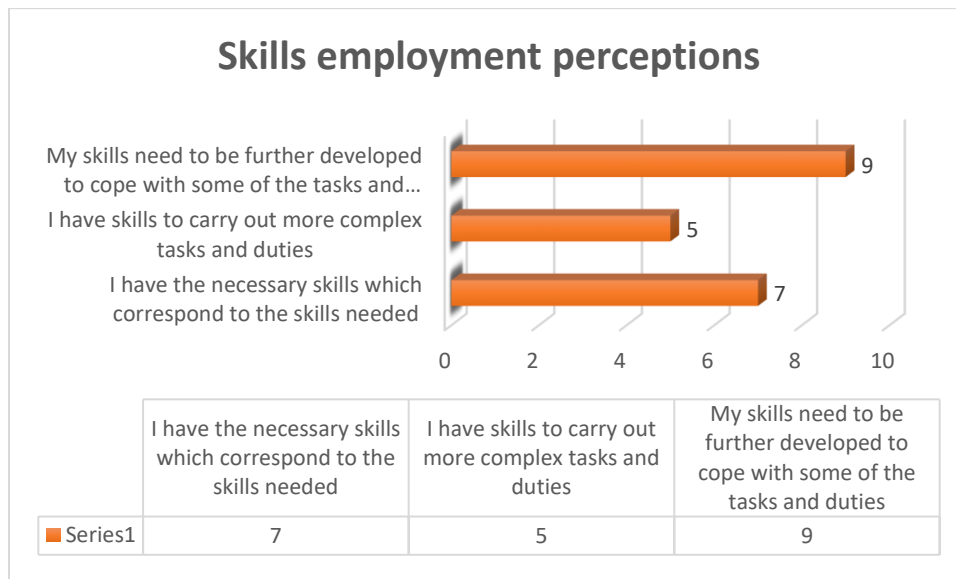
See Annexure 2

Source: Interview survey (2023)

#### **6.3.3.1 Skills employment perceptions**

In today's dynamic job market, possessing a diverse set of skills is crucial for employability and career success. These skills, when combined, create a well-rounded and adaptable professional who is equipped to navigate the challenges and opportunities in today's diverse and competitive employment landscape.

In Figure 6-3, the data suggests that, among the participants surveyed, there is a mix of self-perceived skill levels. Firstly, "I have the necessary skills which correspond to the skills needed": seven participants feel confident in possessing the required skills for their current tasks and duties. This group likely perceives themselves as well-equipped and proficient in meeting the demands of their roles. Secondly, "I have skills to carry out more complex tasks and duties": Five participants acknowledge having skills that extend beyond basic requirements, indicating a readiness and capability to take on more complex responsibilities. This group may be positioned for advancement or roles with increased complexity. Lastly, "My skills need to be further developed to cope with some of the tasks and duties": Nine participants recognized a need for skill development to handle certain tasks and duties. This group likely identifies areas where improvement is necessary, signaling a potential interest in professional development or training opportunities.

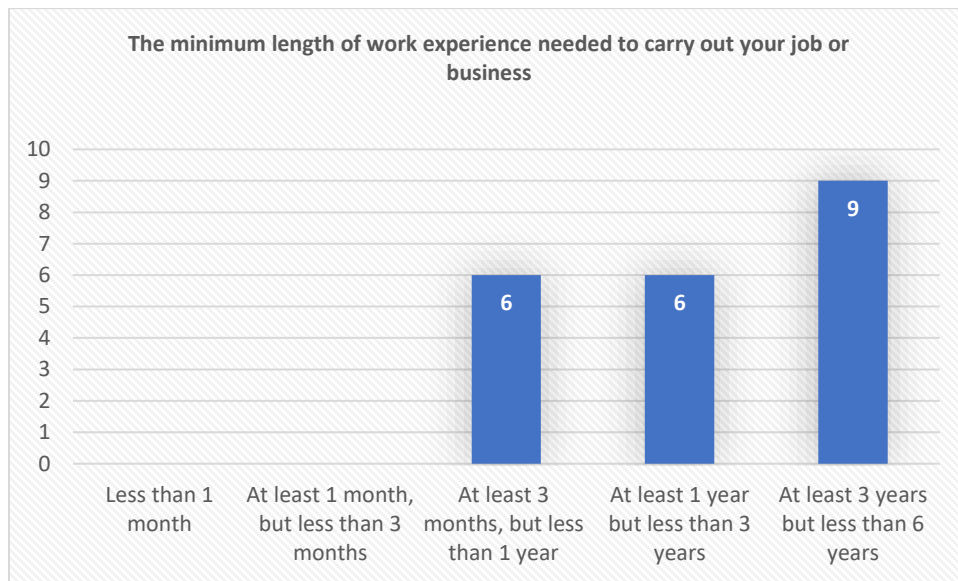


**Figure 6-3: Skills employment perceptions**

Source: Interview survey (2023)

The diversity in responses highlights the varied levels of self-perceived competence among participants. Recognizing the need for ongoing skill development is crucial in today's dynamic job market, where adaptability and continuous learning are highly valued. Employability and career success can be enhanced by leveraging existing strengths, pursuing opportunities for growth, and addressing skill gaps to meet the evolving demands of the professional landscape.

The provided data in Table 6-4 reflects the minimum length of work experience perceived as necessary for carrying out a job or business by the respondents. "Less than 1 month": No respondents indicated that they believe a job or business in their field requires less than one month of work experience. This may suggest a consensus that a minimal level of experience is necessary before undertaking responsibilities. "At least 1 month, but less than 3 months": Similarly, no respondents specified a need for experience in the range of one to three months. This could imply that the perceived threshold for competency starts beyond the initial few weeks.



**Figure 6-4: The minimum length of work experience needed to carry out your job or business**

Source: Interview survey (2023)

However, "At least 3 months, but less than 1 year": six respondents recognize a need for at least three months but less than one year of experience. This suggests a common perception that a moderate level of familiarity with the job or business is necessary, and a short-term exposure may not suffice. Additionally, "At least 1 year but less than 3 years": six respondents indicated that a minimum of one to three years of experience is deemed necessary for the job or business. This signifies a recognition among participants that a more substantial and sustained period of experience is beneficial. Furthermore, "At least 3 years but less than 6 years": nine respondents identified a range of at least three to less than six years as the minimum experience required.

This suggests that a majority of participants believe that a more extensive and seasoned background is essential for effectively handling the demands of their job or business.

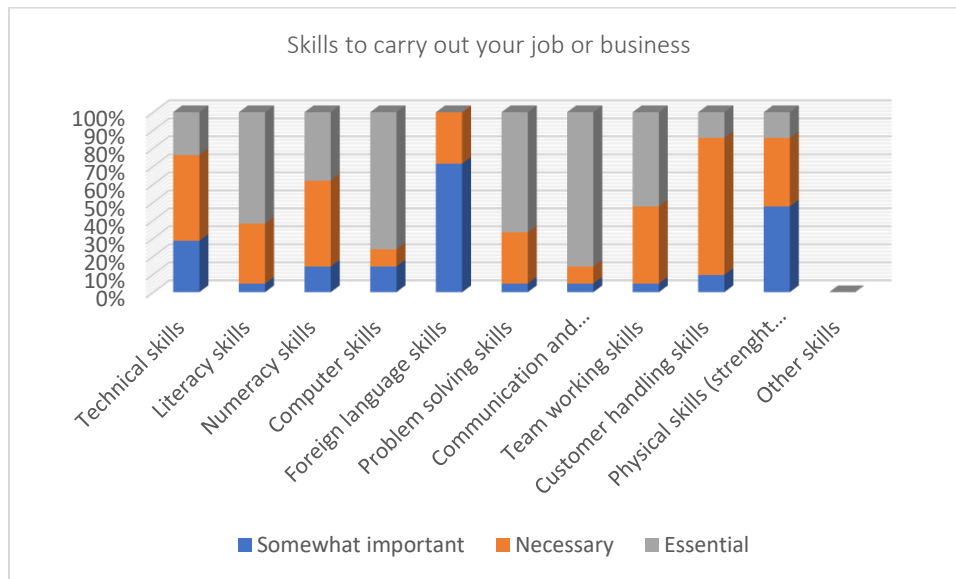
Therefore, the data implies a collective acknowledgment among the respondents that a significant duration of work experience, particularly in the range of three to six years, is perceived as necessary for competence in their respective roles or businesses. This insight into perceived experience requirements can inform discussions on recruitment, professional development, and expectations within the given industry or field.

In Figure 6-5, technical skills are viewed as necessary by the majority (10 responses), indicating a consensus on their importance. However, the distribution across all three categories suggests that while crucial, they may not universally be considered essential. Literacy skills, particularly the ability to read and write effectively, are overwhelmingly considered essential (13 responses). This underscores the recognition of the fundamental importance of strong literacy skills in various professional settings. Numeracy skills are perceived as both necessary and essential, with a majority placing them in the essential category (eight responses). This suggests a shared understanding of the importance of mathematical abilities in the workplace.

In addition, computer skills are overwhelmingly viewed as essential (16 responses), highlighting the critical role of technological proficiency in today's workforce. This underscores the increasing importance of digital literacy. Foreign language skills are considered somewhat important by the majority (15 responses), suggesting their value in certain contexts. However, the lack of responses categorizing them as essential implies that they may not be universally required. Problem-solving skills are widely recognized as essential (14 responses), indicating a shared understanding of their crucial role in navigating challenges and making informed decisions in the workplace. Communication and presentation skills are overwhelmingly viewed as essential (18 responses), highlighting their critical importance in effective workplace communication and professional success.

Team working skills are seen as both necessary and essential, with a substantial number of responses in the essential category (11 responses). This underscores the significance of collaboration in various work environments. Customer handling skills are primarily viewed as necessary (16 responses), reflecting their importance in roles involving customer interaction. The distribution suggests that while vital, they may not universally be considered essential. Physical skills, such as strength or dexterity, are considered somewhat important by a significant number

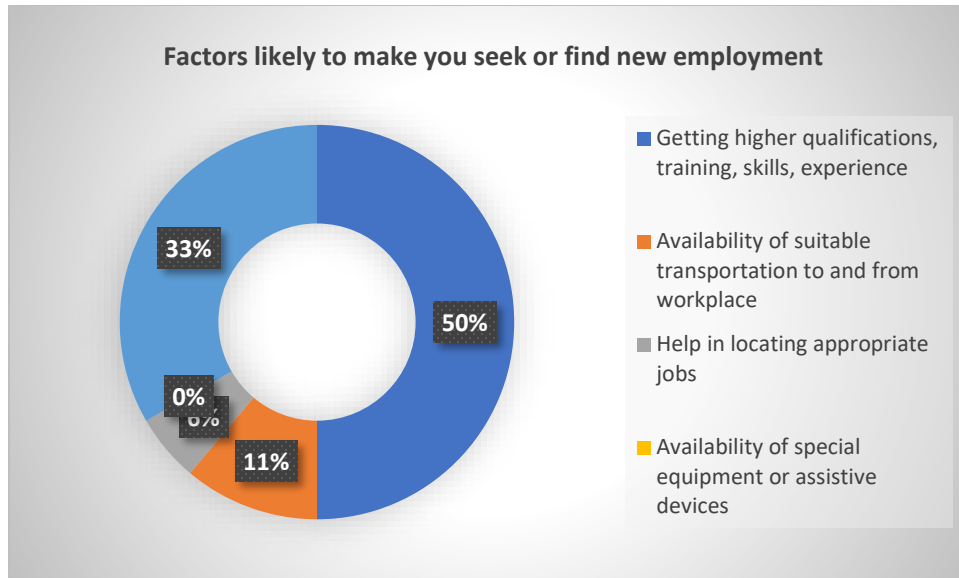
(10 responses), emphasizing their relevance in certain roles. However, the distribution suggests they may not be universally essential. The findings highlight a shared understanding among the respondents regarding the importance of a diverse set of skills, with a strong emphasis on essential skills such as literacy, problem-solving, communication, and computer proficiency. These insights can guide workforce development strategies and educational programs to align with the perceived needs of various industries.



**Figure 6-5: Skills to carry out your job or business**

Source: Interview survey (2023)

The findings in Figure 6-6, indicate that the majority of respondents, 18 in total, consider obtaining higher qualifications, training, skills, and experience as a key factor that would make it more likely for them to seek or find a job. This emphasis on continuous improvement and professional development reflects a recognition among respondents that enhancing one's qualifications and skills is a proactive strategy for career advancement and employability. In contrast, a smaller number of respondents, four in total, identified the availability of suitable transportation to and from the workplace as a factor that would influence their job-seeking decisions. This suggests that for a subset of individuals, logistical considerations related to transportation play a role in their job search process.



**Figure 6-6: Factors that would make it more likely for you to seek or find a job**

Source: Interview survey (2023)

Similarly, two respondents highlighted the importance of receiving help in locating appropriate jobs. This indicates a recognition that support in the job search process, such as job placement services or career guidance, is a significant factor in their likelihood of seeking or finding employment. Notably, the availability of special equipment or assistive devices did not receive any mention among the respondents. This could suggest that, within the context of the survey, the need for specific tools or accommodation is not perceived as a primary factor influencing job-seeking decisions for this group. Finally, a considerable number of respondents, 12 in total, expressed that the availability of more flexible work schedules or work task arrangements would make it more likely for them to seek or find a job. This highlights the importance of work-life balance and flexibility as a key consideration for a significant portion of the surveyed population, indicating a growing trend in the workforce towards valuing flexibility in work arrangements.

The findings thus illustrate that while factors related to personal development and skills acquisition are widely recognized and crucial, considerations such as transportation, job search assistance, the availability of special equipment, and flexible work arrangements also play distinct roles in shaping individuals' decisions to seek or find employment. This nuanced understanding can inform strategies for workforce development, job placement services, and organizational policies aimed at attracting and retaining talent.

## **6.4 SYNTHESISING THE QUANTITATIVE AND QUALITATIVE ANALYSIS**

In this research study, a mixed methods analysis was used to compare both the quantitative and qualitative findings of the study. The quantitative approaches enabled the collection and analysis of numerical data while maintaining statistical rigor and generalizability. In addition, the qualitative methods, on the other hand, provided a deeper study of the underlying reasons and meanings behind quantitative data, capturing the depth and complexity of human experiences. Integrating these two methodologies allowed the researcher to triangulate findings, increasing the study's overall validity and dependability. This section presents a concise summary of the main findings derived from both qualitative and quantitative analyses. The study's findings indicated that the mixed method approach was essential because it confirmed the findings that were highlighted in Chapter 5 (quantitative) which showed that there is a significance in the correlation between geographical immobility and transportation infrastructure and the concurrent relationship found in Chapter 6 (qualitative) which also indicated that participants are willing to relocate but on the condition that there is good transportation infrastructure in the relocation region, there is adequate housing as well as quality childcare and schools due to their family ties and relationships.

### **6.4.1 Patterns and trends identified**

Some of the patterns and trends identified in Chapter 5 was also found in thematic analysis of Chapter 6, which validated the studies trends and associations within the data, which further offered both a quantitative and qualitative context to the research questions as alluded to in Chapter 1. In chapter 5 findings indicated that the participants are unlikely to move in certain conditions that included career and skills mismatches, traveling immobility, relocate immobility for a job opportunity, employment barriers, geographical immobility for a job opportunity and lastly family immobility due to job opportunities. Similarly in Chapter 6 findings of the thematic analysis identified related themes which include transportation costs, limited transportation options, distance travelling and connectivity. Family considerations which refer to their family ties and the need for adequate childcare and schooling. Participants indicated the possibility of mismatches between their skills and qualifications.

### **6.4.2 Statistical analysis**

The statistical analysis indicated that there is prevalence of certain factors of graduate labour immobility which could identify both strengths and weaknesses within the labour market.

Concurrently, the qualitative findings provided a more in-depth analysis on the exploration of these themes and sub-themes identified which helped to elucidate the underlying factors and context that influence the observed quantitative outcomes. The qualitative data was also instrumental in explaining some of the unexpected quantitative results and offering alternative perspectives that were not apparent through the statistical analysis alone. Only two participants indicated that health care is a high priority when looking at geographical immobility. However, in Chapter 5, 93% of the participants indicated that they are unlikely to if there aren't quality healthcare facilities nearby that will discourage them from relocating or moving for any type of employment opportunities. In addition, 91.1% indicated that upon relocating they could not find a suitable job which further hampered their financial constraints which is also evident in Chapter 6, 6.4.3.3< Sub-theme 4: Wage disparities and financial constraints – they can't afford school fees in some areas, a participant indicated that they can't afford a car and have to make use of public transport to get to and from work daily. This also put strain on them, their safety and the timely commutes daily is tiring and takes away from family time or even work when they arrive late. This also leaves room for more avenues to be studied more in-depth into the perceptions of graduate labour immobility and those antecedents that contribute to decision making evolving around graduates' labour immobility.

By combining these two methods, the researcher could present a more holistic and robust interpretation of both findings, bridging the gap between the quantitative data and qualitative data which is linked to the lived experience of the participants. This comprehensive approach not only strengthens the credibility of the study but also provides a more nuanced and actionable understanding for future research and policymakers.

## **6.5 SYNOPSIS**

The chapter on graduate labour immobility in South Africa presents the findings of a qualitative analysis conducted through in-depth interviews with 21 individuals, consisting of 13 women and 8 men. The purpose of this study was to gain insight into the factors that influence the mobility, or lack thereof, of skilled graduates in South Africa. The data was collected using a convenience sampling approach, and participants were recruited through informal and professional networks and connections. This chapter aimed to shed light on various aspects of graduate labour immobility, including geographical (im)mobility, occupational (im)mobility, and skills (im)mobility, within the context of South Africa. The study used semi-structured interviews to explore several key topics. These included the current work and skills sets of the participants, the factors that

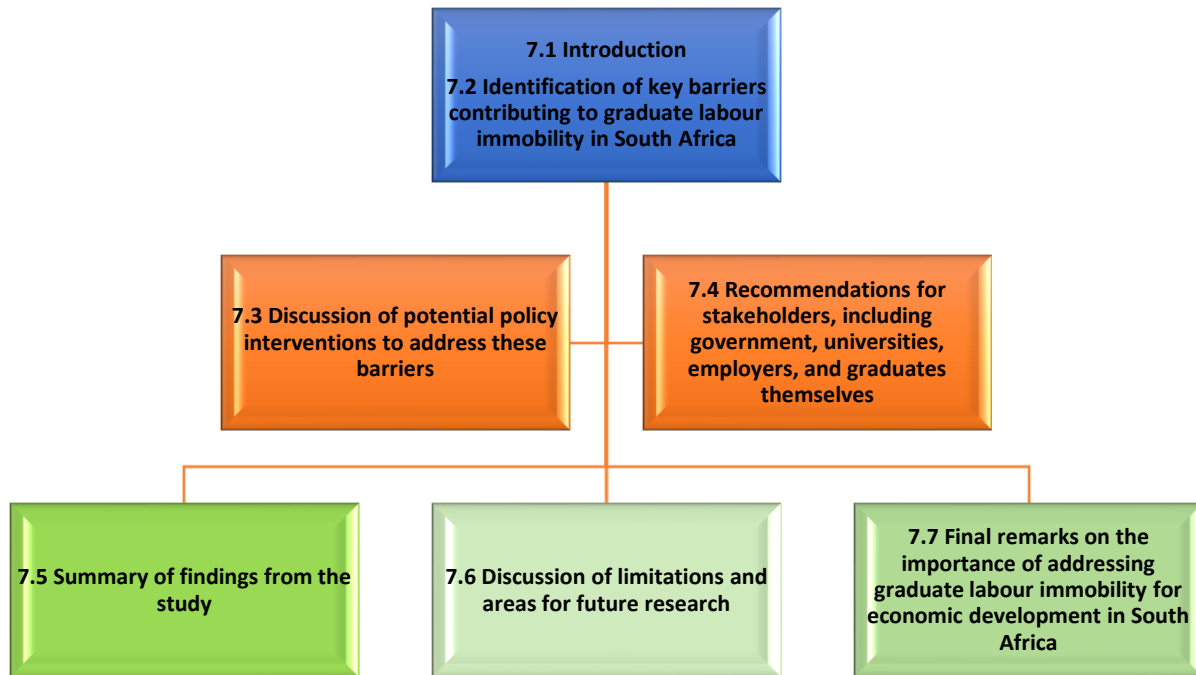
influenced their decisions to move or stay in their respective regions, provinces, and countries, their perceptions of family and personal life in South Africa, and their perspectives on future mobility outlook. All interviewees were employed at the time of the interviews, it was skilled graduates who had given their consent to participate in the study. The insights gained from this research have important implications for understanding graduate labour immobility trends in South Africa.

The mixed method findings indicated that employees are more willing to relocate when the prospective location offers a safer environment and aligns with their current lifestyle preferences. Safety concerns and lifestyle compatibility emerge as crucial factors influencing the mobility decisions of the workforce. Additionally, family ties and adequate childcare and schooling are significantly influenced by family considerations, particularly the strength of family ties and the availability of suitable childcare and schooling options. Professionals often weigh these factors heavily when deciding whether to uproot their families for career opportunities. Furthermore, the efficiency and affordability of transportation infrastructure plays a pivotal role in geographical labour mobility. High transportation costs, limited options, long distances, and poor connectivity act as deterrents, affecting employees' willingness to consider relocation for work. Lastly, housing market dynamics, wage disparities, skills-mismatches and their level of education linked to their skills significantly impact labour mobility, with housing affordability and limitations to rental availability emerging as key factors, if they can't afford it they most likely won't be willing to relocate, if they don't meet the labour market demand they remain stagnant.

In conclusion, this qualitative analysis has provided valuable insights into the complexities of graduate labour immobility in South Africa. The findings underscore the multifaceted nature of immobility decisions, influenced by factors ranging from economic opportunities and skills recognition to personal and family considerations. Understanding these dynamics is crucial for policymakers, employers, and educators in South Africa as they seek to address labour market challenges and support the career aspirations of the nation's skilled graduates. Additionally, future research and policy initiatives should focus on enhancing the portability of skills and qualifications while also addressing the social and personal factors that impact mobility decisions in this context.

## CHAPTER 7: SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

*“Nothing has such power to broaden the mind as the ability to investigate systematically and truly all that comes under thy observation in life.” - Marcus Aurelius*



**Figure 7-1: Framework chapter seven**

Source: Compilation by the author

### 7.1 INTRODUCTION

The final chapter on graduate labour immobility investigates the phenomena of individuals with degrees having difficulty transferring or transitioning between different geographical areas or sectors within the job market. This immobility can be linked to a variety of variables, including regional economic differences, industry-specific skill needs, and personal restrictions. Understanding graduate labour immobility is critical for politicians, educators, and employers because it affects workforce dynamics and economic development. This study of graduate labour immobility serves as a critical guidepost for our knowledge of modern worker dynamics. The present-day professional landscape is marked by a contradiction in which increased educational attainment, presumably is a passport to mobility, frequently collides with the gravitational pull of regional restrictions. The consequences go far beyond individual career paths, affecting

organisational structures, regional economies, and societal dynamics. This research not only contributes to the scholarly discourse by deciphering the intricate movement between educational investments, career choices, and geographical boundaries, but it also provides pragmatic insights for educators, employers, and policymakers grappling with the challenge of cultivating a mobile and adaptive workforce. The importance of productive, decent, and quality employment is also reflected in the fact that it is included in the 2030 Sustainable Development Goals (target 8), making graduate labour immobility a significant issue worth investigating. Especially considering that in mainstream economics, graduate labour immobility is still an under researched topic. Therefore, most of the existing literature is based on just migration labour immobility while there is a research gap on examining diverse properties of graduate labour immobility in South Africa as well as other developing nations.

This chapter consist of section 7.2 which focused on the identification of key barriers contributing to graduate labour immobility in South Africa, followed by section 7.3 which discussed the potential policy interventions to address these barriers. Thereafter, section 7.4 provides recommendations for stakeholders, including government, universities, employers, and graduates themselves and lastly section 7.5 summarised the findings of the study.

The empirical objectives that assisted in achieving the primary objective of the study were to:

- To determine which antecedents, which influence labour immobility of South African graduates (Chapter 2 and 3: Literature) (Chapter 5 and 6: Empirical findings)
- Based on previous findings, providing insight to theories and models used to determine labour immobility in South Africa (Chapter 2,3, 5 and 6)
- To determine the relationship between the various factors (Chapter 5 and 6)
- To construct a detailed guideline for new strategic policy development recommendations, which will be sustainable in the short and long-term. (Chapter 7)

The above-mentioned empirical objectives were met through a comprehensive survey of graduates in South Africa employed or unemployed. As a result, Chapter 7 presents the findings and policy recommendations based on the analysis on the antecedents of graduate labour immobility in South Africa.

## **7.2 IDENTIFICATION OF KEY BARRIERS CONTRIBUTING TO GRADUATE LABOUR IMMOBILITY IN SOUTH AFRICA**

Conventional migration theories describe mobility in terms of macro-level variations in location attributes, meso-level group dynamics and networking, and micro-level behavioural tactics and socioeconomic factors. Research analysing aggregate data has demonstrated that variations in labour market conditions and place-specific living standards might account for variations in migration and relocation patterns experienced. However, the great majority of people have not moved and do not plan to move, despite the fact that there are still significant macroeconomic inequalities between many nations as well as within them, and that political and technical advancements have made it easier to migrate or relocate to different regions, provinces and countries.

### **7.2.1 Geographical (Im)mobility**

The study revealed that geographical mobility among skilled graduates in South Africa is influenced by various factors. While some participants expressed a desire to explore new opportunities in different regions or countries, many cited the challenges associated with relocation, such as financial constraints, family ties, and transportation infrastructure factors, as significant barriers to their mobility.

### **7.2.3 Occupational (Im)mobility**

The participants' perspectives on occupational mobility highlighted the importance of job security and career advancement. Some participants were willing to move to advance their careers, while others preferred stability in their current positions. The existence of opportunities in specific regions and industries played a pivotal role in their decisions.

### **7.2.4 Skills (Im)mobility**

The study emphasized the importance of skills in determining mobility patterns. Graduates with specialized skills often found it easier to secure employment in different locations, both within South Africa and internationally. However, the recognition and transferability of qualifications and skills were noted as challenges.

### **7.2.5 Family and Personal Life**

Family and personal considerations emerged as critical factors affecting mobility decisions. Many participants indicated that they were reluctant to relocate due to the potential disruption it could cause to their family life and personal relationships. The desire to remain close to loved ones and maintain a sense of belonging in their communities was a common theme.

### **7.2.6 Future Mobility Outlook**

The participants had varying perspectives on their future mobility. Some expressed a willingness to consider moving in pursuit of new opportunities, while others were more inclined to stay in their -current locations. Economic stability, political developments, and perceptions of safety in South Africa played a role in shaping their outlook on future mobility.

## **7.3 DISCUSSION OF POTENTIAL POLICY INTERVENTIONS TO ADDRESS THESE BARRIERS**

Policymakers must prioritize transportation infrastructure expenditures to improve connections, lower prices, and provide diversified mobility options, thereby supporting long-term economic development. Policymakers need to prioritize initiatives that strengthen family bonds and provide adequate support systems for childcare and education to promote the well-being of individuals and society at large.

The section suggests a set of policy recommendations aimed at mitigating graduate labour immobility. These recommendations are designed to be comprehensive and multi-faceted, addressing the root causes identified in sections 7.2< of the chapter. They may include:

1. **Enhancing Career Guidance Services:** Implementing robust career guidance programs to help graduates make informed decisions about their career paths, including information on diverse job opportunities and the skills required in different sectors.
2. **Industry-Academia Collaboration:** Promoting collaboration between educational institutions and industries to ensure that academic programs align with the evolving needs of the labor market, reducing the skills gap that may contribute to immobility.

3. **Regional Economic Development Initiatives:** Investing in initiatives that promote economic development in regions with limited job opportunities, thereby reducing regional disparities and providing graduates with more choices.
4. **Flexible Work Arrangements:** Encouraging employers to adopt flexible work arrangements, such as remote work options, to accommodate the personal constraints that may hinder graduates from relocating.
5. **Government Incentives:** Introducing financial incentives or subsidies for employers or individuals willing to invest in regions facing labor shortages, thereby encouraging mobility.

By implementing these policy recommendations, policymakers aim to create an environment that facilitates the mobility of highly educated individuals, contributing to a more agile and responsive labour market.

#### **7.4 RECOMMENDATIONS FOR STAKEHOLDERS, INCLUDING GOVERNMENT, UNIVERSITIES, EMPLOYERS, AND GRADUATES THEMSELVES**

There are several actions the government can take to increase the amount of mobility in the labour market. These can be implemented through incentives or small nudges. Schemes that either encourage workers to move or retrain or give incentives for firms to relocate. A few examples may include:

Training and re-training schemes to enable labour to develop their general skills and become more employable in a variety of occupations or industries. General skills include transferable skills like numeracy, literacy and IT skills. More information should be readily available to graduate jobseekers so that searching for work is easier. The government can assist by providing subsidies to labour or firms, such as help with re-location expenses, and subsidised housing. Furthermore, incentives to domestic firms to relocate to the regions, including providing 'tax breaks' and investment grants.

Promoting graduate labour mobility is also crucial in today's globalised labour market. Here are some recommendations for various stakeholders to enhance graduate labour mobility:

1. **Government:**

- **Harmonize policies:** Governments should work towards harmonizing visa and work permit policies to facilitate the movement of graduates across borders.
- **International collaboration:** Foster international collaborations between educational institutions and employers to create joint programs that enhance global employability.
- **Skill recognition:** Establish mechanisms for recognizing and validating international qualifications to ensure that graduates' skills are acknowledged and valued globally.
- **Incentives:** Provide incentives for businesses to hire graduates with international experience, encouraging cross-border talent acquisition.

## 2. Universities:

- **Global curriculum:** Develop globalised curricula that include cultural competence, language skills, and international perspectives to prepare graduates for a both local and global workforce.
- **Exchange programs:** Facilitate student exchange programs, internships, and collaborations with foreign universities and industries to provide students with international exposure.
- **Career counseling:** Offer comprehensive career counseling services that guide students on the benefits of both national as well as international experience and help them plan their careers accordingly.

## 3. Employers:

- **Diversity and inclusion:** Embrace diversity and inclusion by actively seeking graduates from diverse backgrounds and experiences, valuing the unique perspectives they bring to the workplace.
- **Cross-cultural training:** Provide cross-cultural training for employees to ensure effective communication and collaboration within a diverse workforce.

- **Flexible work arrangements:** Offer flexible work arrangements, including remote work options, to accommodate graduates who may want to work from different locations.

#### 4. **Graduates:**

- **Language proficiency:** Enhance language proficiency, as proficiency in English and other relevant languages can significantly improve employability on a national as well as global context.
- **Cultural adaptability:** Develop cultural adaptability skills to navigate different work environments and effectively collaborate with colleagues from diverse backgrounds.
- **Networking:** Build a professional network through online platforms, industry events, and professional associations to enhance career opportunities worldwide.
- **Continuous learning:** Embrace a mindset of continuous learning to stay updated on current and future industry trends and remain competitive in the global job market.

#### 5. **International organisations:**

- **Standardisation of qualifications:** Work towards the standardisation of qualifications and credentials to simplify the recognition of degrees and skills across all borders.
- **Research and data sharing:** Facilitate research on local, international and global labour market trends, and share data and insights to help stakeholders make informed decisions regarding graduate mobility.
- **Advocacy:** Advocate for policies that promote fair and inclusive labour mobility, ensuring that individuals from all backgrounds have equal opportunities.

By collaborating and implementing these recommendations, stakeholders can contribute to a more fluid and globally connected labour market, benefiting both graduates and the organisations seeking their talents and expertise in the workplace.

## 7.5 SUMMARY OF FINDINGS FROM THE STUDY

### 7.5.1 Theoretical background

The theoretical foundation of the study is based on the theoretical objectives listed in section 1.3. As a result, these theoretical objectives aided in the accomplishment of the primary objective and aim of the study, which was to analyse the antecedents of graduate labour immobility in South Africa. The study's theoretical underpinnings were derived from a knowledge of how graduate labour immobility is conceptualised, with the aim of determining how unemployment, labour market integration as well as socioeconomic factors fits into this framework of labour immobility and to what extent does it influence the labour market outcomes. Labour immobility is described by Campbell (1994) as a dynamic economic development advancement. Labour is a factor of production, and factors of production are deemed static when they are difficult to convert from one use to another. Since labour mobility is a major factor in economic growth and development in today's globalized economy, policymakers and economists everywhere are very concerned about labour immobility. In addition, more than 15 years ago researchers in the field of labour market and academics had found that occupational immobility exists across different occupations which require different skills and experiences, whether these be soft skills, technical skills or even analytical skills. Before labourers enter a new market, they will need to re-train, re-educate and develop new skills (Reicher *et al.*, 2006). Furthermore, if the growing industries are located somewhere different than the failing ones, geographical immobility may make the issue worse. Employees are reluctant to hunt for work because relocation is costly if they must move. The issue is made worse by regional differences in home prices.

Additionally, by establishing retraining programs to enable employees to get the skills necessary for redeployment, the government may be able to prevent labour immobility (Zimmermann, 2005). Skills immobility also plays a critical role in framework of graduate labour immobility, suggesting that, according to a different study by Allias (2022), there is typically a skills gap between what South Africa needs and what the educational system can provide, and this has a detrimental effect on the country's economy. Comparably, a study by Asmal *et al.* (2022) discovered that the educational requirements of workers' current employment and their own educational levels differ significantly. Teal (2011) states that this particular dysfunction was present in both schools and higher education institutions (HEIs) at all levels. Change must be made drastically since there is an urgent need to provide the skills needed over the next ten years.

Since a trained workforce is necessary for economic growth and development, high-quality education is crucial for the development of skills (Berar, 2022). Better skilled people can lead lower unemployment rates, and a more promising economic future could result from this. In certain instances, South Africans must contend with a postsecondary education system that has traditionally prioritized training for jobs in the public sector, giving little to no consideration to the needs of the private sector at the majority of universities (Teal, 2011). All of these main themes were discussed thoroughly in Chapter two to acknowledge the fact that labour immobility is indeed a multidimensional concept that goes far beyond the norm of labour market instruments which are closely associated with the being unemployed or employed.

Different measurement tools were also identified in Chapter two and three of the study, since it isn't so simplistic as to how, where and what measures exist in attaining graduate labour immobility statistics that is accurate and accessible. This is thought to be one of the obstacles keeping many developing nations from taking a more thorough approach to assessing graduate labour immobility than they currently do, which mainly consist of various factors that should be taken into consideration such as do the graduate have the relevant skills and qualifications, where is the graduate located and is it possible to move or travel, the form of commuting daily. The number of hours worked per week, the salary bracket and classifying individuals as labour immobile if they fall short of these considered factors as mentioned.

Therefore, the study conducted an in-depth scoping literature review on labour immobility and creating a framework that encompasses the different antecedents associated with graduate labour immobility. Furthermore, To define and conceptualise labour immobility from a theoretical perspective approach through an in-depth concept analysis, and the determine the antecedents (causes) that leads to graduate labour immobility. The study also developed a national questionnaire on labour immobility of graduates from the findings of the scoping literature review in Chapter 2 as well as the conceptual framework on labour market integration and socioeconomic theoretical perspectives as discussed in Chapter 3. Through this research conducted it addressed the research objectives as mentioned in Chapter 1 section 1.4.3.

From the perspective of economic theory, the neoclassical perspective on macroeconomics holds that, in the long run, the economy will fluctuate around its potential GDP and its natural rate of unemployment. However, the institutional economic perspective contends that labour immobility results from a number of discriminatory characteristics as well that go beyond human capital. For

example, geographic location, gender, and race are related to the labour market failures (Fernandez & Su, 2004).

### **7.5.2 Methodological and empirical process**

Chapter 4 of the study outlines the nature and scope of the study's approach. The chapter discussed the methodological framework applied throughout the study, providing more detailed discussion on how the study sought to achieve the objectives identified in Chapter 1 (Section 1.4.1, 1.4.2 and 1.4.3). This chapter of the study was devoted to the development of the desired methodology and technique used through the study process which provides in-depth explanation of how the research design and methodology were conducted. The research aims and objectives are restated in section 1.4. Section 4.2 provides the research paradigm used in this study, followed by the philosophical foundations. Sections 4.3 and 4.4 provided an overview of the research approach as well as the research design used in the study. Furthermore, the sampling method used is described in Section 4.5, and Section 4.6 describes the data collection process. All ethical considerations in relation to the research was highlighted in this section. In addition, Section 4.7 provided the model and technique of analysis used in the study, while the summary and conclusion were presented in Section 4.8.

The constructivist paradigm is implemented in the study's qualitative phase to understand graduate labour immobility perceptions and what barriers they face when moving within or from certain industries, while the quantitative portion of the study employs the positivist paradigm to assess and quantify graduate labour immobility which is associated with the relevant study objectives identified in Section 1.4 of Chapter 1.

The specific research questions and study objectives, like the underlying paradigm, has a considerable impact on the chosen research technique. This mixed method technique began with a qualitative scoping literature review, which serves as the foundation for the quantitative questionnaire design, which is based on the findings within the scope of the literature. Following that, the study conducted the quantitative data collection phase with a self-administered questionnaire. Finally, using a semi-structured interview method, qualitative data were acquired from participants in the sample population. The goal of an explanatory mixed method design was to first collect quantitative data to explain links discovered in qualitative data analysis. Therefore, the qualitative techniques are more suited for study concerns that necessitate a more in-depth and meaningful knowledge, integrating both historical and cultural context (Ryan, 2006). These

procedures would frequently involve the use of tools such as open-ended and emergent questions, as well as data obtained within the context of the participants or study objects (McDaniel & Gates, 2013). This gave the research the advantage of appropriately depicting the research question under consideration's complexity.

Permission to conduct the study was granted after adhering to the various ethical procedures mandated by the North-West University and Ethics Committee. Graduate participants were then provided with a cover letter outlining the study's objectives and a link to the questionnaire, along with informed consent. The questionnaire was subjected to a peer review procedure to guarantee that the questions are both concise and clear, and that they are connected to the empirical aims of the study. In accordance with guidelines from the literature (see McDaniel & Gates, 2013), the survey was also pilot tested to make sure it takes less than 20 minutes to complete and to make sure there are no technical or navigational problems because it was administered online using Google Forms.

The frequency distribution's descriptive statistics have been derived and interpreted. Additionally, bar graphs, pie charts and histograms were used in an illustrative study of the data. Furthermore, cross-tabulations were employed to comprehend the connections between various demographic and socioeconomic characteristics and the variable of interest, which is graduate labour immobility. Furthermore, the perceptions obtained through Principal Component Analysis were converted into explanatory factor analysis categories that was measured as continuous variables, with a lower score indicating agreement with the associated factor immobility type and a higher score indicating disagreement or the absence of a corresponding factor immobility type. This provided more insight into the relationship between the factors associated with graduate labour immobility.

## **7.6 DISCUSSION OF LIMITATIONS AND AREAS FOR FUTURE RESEARCH**

This study analysed the antecedents of graduate labour immobility in South Africa among HEI's graduates. The study, like other studies, contains limitations that may open up new possibilities for future research. To begin, caution should be exercised when inferring the findings to the South African graduate population. Second, the gender distribution favoured females; while this is consistent with national statistics, future study should try for a more balanced distribution. Third, the study field was heavily weighted toward economics and management sciences (EMS), education and humanities, which may have influenced the study's findings given that previous

research (e.g., Bhorat *et al.*, 2017) has found that graduates in generic courses are more likely to face labour immobility outcomes than graduates for example in the field of health and engineering sciences. Some additional areas for future research:

- The study's generalizability may be limited to the specific demographic characteristics of the sample population group. So, they can expand on the sample population.
- Future research could explore additional factors not covered in this study that may contribute to graduate labour immobility.
- Longitudinal studies could provide insights into how these factors evolve over time.
- Policies and interventions addressing the identified factors can be developed to enhance graduate labour mobility and contribute to economic growth.

In addition, another limit may be the difficulty of having enough respondents participate in your study, as well as the time constraints associated to the data collection and data cleaning process as well. The extent to which qualitative data is being collected and ensuring that participants are comfortable sharing all of their personal data even though it is on an anonymous basis. Furthermore, the same study might be conducted on unemployed graduates, adding to the existing literature on unemployment in South Africa. Finally, future study might look into how issues like rapid technological advancements, global trends, career transition-perceptions, and on-the-job training affect graduate labour immobility.

## **7.7 FINAL REMARKS ON THE IMPORTANCE OF ADDRESSING GRADUATE LABOUR IMMOBILITY FOR ECONOMIC DEVELOPMENT IN SOUTH AFRICA**

The chapter began by defining graduate labour immobility and providing context for its significance in the contemporary labour market. It delves into the various dimensions of immobility, including geographical, skills, and occupational aspects. Empirical evidence was presented to illustrate the prevalence and consequences of graduate labour immobility in South Africa. The factors identified contributing to graduate labour immobility were then explored in detail. These factors included the mismatch between academic training and industry needs, lack of information about job opportunities, regional economic disparities, and the influence of personal or familial considerations. The chapter emphasized the need to recognize the complexity of these factors to develop effective strategies for addressing labour immobility.

By providing a comprehensive analysis of the antecedents of graduate labour immobility in South Africa, this thesis aimed to contribute to the existing literature on labour mobility while offering practical insights into how policymakers can address this issue. The findings will be valuable for developing strategies that promote greater geographical flexibility among graduates, leading to improved employment outcomes and overall socioeconomic growth in the country.

- The demographic factors of age, race, marital status, dependents, field of study, type of employment, and sector/industry employed have notable effects on labor immobility.
- The findings can contribute to skills forecasting for future economic needs, particularly in private and local sectors.
- The identified factors can inform policies and strategies to address labor immobility issues among South African graduates.
- The study provides a foundation for further exploration of theories and models explaining labour immobility in the South African context.

In the conclusion, the chapter synthesizes the key findings and insights gained from the exploration of graduate labour immobility. It highlights the interconnectedness of various factors and their cumulative impact on the mobility of highly educated individuals in the workforce. The chapter concludes by underlining the importance of addressing these challenges to foster a more dynamic and adaptable labour market.

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## ANNEXURE A: QUESTIONNAIRE



Section 1 of 18

### Analysing the antecedents of graduate labour immobility in South Africa

Dear graduate, my name is Abigail Stiglingh-Van Wyk. I need your help to complete my PhD in Economic Sciences.

You have been invited to participate in my research project as you are a graduate/alumnus of a South African Higher Education institution. If you are an employed or unemployed graduate, I need your inputs to identify the antecedents of graduate labour immobility in South Africa.

This research study has been approved by the Economics and Management Sciences - Research Ethics Committee of the North-West University (**NWU-01841-22-S4**) and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

#### **Inclusion criteria for participation:**

1. You must be at least between 18 and 64 years of age.
2. You must be a graduate of at least a 3-year completed qualification from any South African Higher & Further Education institution.

<https://docs.google.com/forms/d/1UltYQKRS8FJ081wism3VckDFTtepHieluYvywmHg5lo/edit>

For any further information, kindly contact the researcher:

[Abigail.Stiglingh@nwu.ac.za](mailto:Abigail.Stiglingh@nwu.ac.za)

## ANNEXURE B: INTERVIEW SURVEY QUESTIONNAIRE

### Interview Questions

#### Employed participants

**Geographical (im)mobility** - refers to the lack of flexibility and freedom laborers don't have to physically move from one location to another to find gainful employment in their field(s).

1. With your current employment status are you able to move/relocate to another province/sector without experiencing any major problems? (e.g., lack of transport, lack of finances)

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2. (If) you relocated based on the previous question. Upon relocating were you able to find adequate housing?

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3. a) What are some of the challenges you face daily due to your employment location/ or your (b) place of residence?

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4. Have you ever declined/had to leave a job opportunity? If yes, why?

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5. How far do you travel to work every day? And by what means do you travel? Cost estimates daily?

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**Occupational labour (im)mobility** - refers to the ability/inability of workers/graduates to switch career field(s)/studies to find gainful employment to meet the needs of industry.

1. If you knew what you know now, would you have studied a different degree/course and if so, what would it be?

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2. In your opinion, do you have the necessary skills for your current employment?

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3. Do you think you need to acquire new skills?

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4. What is/are some of the limitations that hinders you from finding new/other employment?

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**SKILLS (IM)MOBILITY**

1. Which of the following statements best describes your skills in relation to what is needed for your (job/business)? Would you say ...

- a) I have the necessary skills which correspond to the skills needed  
01
- b) I have skills to carry out more complex tasks and duties  
02
- c) My skills need to be further developed to cope with some of the tasks and duties 03

2. In your view, what is the minimum length of work experience needed to carry out your (job/business)? Would you say...

Less than 1 month	01 <input type="checkbox"/>
At least 1 month, but less than 3 months	02 <input type="checkbox"/>
At least 3 months, but less than 1 year	03 <input type="checkbox"/>
At least 1 year but less than 3 years	04 <input type="checkbox"/>
At least 3 years but less than 6 years	05 <input type="checkbox"/>
[More than 6 years]	06 <input type="checkbox"/>

Source: Adapted from the Labour force survey (LFS) resources, 2022.

3. In your view, how important are these types of skills for carrying out your (job/business)? Would you say...are...

<i>HAND SHOW CARD 3, READ AND MARK ONE ANSWER PER ROW</i>		Somewhat important	Necessary	Essential
a	Technical skills	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
b	Literacy skills	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
c	Numeracy skills	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
d	Computer skills	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
e	Foreign Language skills	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
f	[Problem solving skills]	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
g	[Communication and presentation skills]	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
h	[Team-working skills]	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
i	[Customer handling skills]	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
j	Physical skills (strength and/or dexterity)	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>
k	Other skills _____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	03 <input type="checkbox"/>

Source: Adapted from the Labour force survey (LFS) resources, 2022.

4. Which of the following factors would make it more likely for you to seek or find a job...?

Getting higher qualifications, training, skills, experience	a. <input type="checkbox"/>
Availability of suitable transportation to and from workplace	b. <input type="checkbox"/>
Help in locating appropriate jobs	c. <input type="checkbox"/>
Availability of special equipment or assistive devices	d. <input type="checkbox"/>
Availability of more flexible work schedules or work tasks arrangements	e. <input type="checkbox"/>
Other factors ( <i>Specify</i> ): _____	f. <input type="checkbox"/>

Source: Adapted from the Labour force survey (LFS) resources, 2022.



## ANNEXURE C: ETHICS APPROVAL LETTER OF STUDY



Private Bag X1290, Potchefstroom  
South Africa 2520

Tel: 018 299-1111/2222  
Fax: 018 299-4910  
Web: <http://www.nwu.ac.za>

Senate Committee for Research Ethics  
Tel: 018 299-484  
Fezile.Mseleni@nwu.ac.za

31 October 2022

### ETHICS APPROVAL LETTER OF STUDY

Based on approval by the Economic and Management Sciences Research Ethics Committee (EMS-REC) on 28/10/2022, the Economic and Management Sciences Research Ethics Committee hereby approves your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-REC) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

<b>Study title: Analysing the antecedents of graduate labour immobility in South Africa</b>																																										
<b>Study Leader/Supervisor (Principal Investigator)/Researcher: Prof D Viljoen-Bezuidenhout / Prof E Keyser – PhD in Economics</b>																																										
<b>Student: Stiglingh-van Wyk, A (22315764)</b>																																										
<table border="1"><tr><td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>1</td><td>8</td><td>4</td><td>1</td><td>-</td><td>2</td><td>2</td><td>-</td><td>A</td><td>4</td></tr><tr><td colspan="3">Institution</td><td colspan="6">Study Number</td><td colspan="2">Year</td><td colspan="4">Status</td></tr></table>													N	W	U	-	0	1	8	4	1	-	2	2	-	A	4	Institution			Study Number						Year		Status			
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Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation																																										
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<b>Commencement date: 31/10/2022</b>																																										
<b>Expiry date: 31/10/2023</b>																																										
<b>Risk:</b> <span style="border: 1px solid black; padding: 2px;">Low</span>																																										
<b>Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.</b>																																										

Special in process conditions of the research for approval (if applicable):

•

<p><b>General conditions:</b></p> <p>While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:</p> <ul style="list-style-type: none"><li>• The study leader/supervisor (principle investigator)/researcher must report in the prescribed format to the EMS-REC:<ul style="list-style-type: none"><li>- annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and</li><li>- without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.</li></ul></li><li>• The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EMS-REC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.</li><li>• Annually a number of studies may be randomly selected for an external audit.</li><li>• The date of approval indicates the first date that the study may be started.</li></ul>
---

*n the interest of ethical responsibility, the NWU-SCRE and EMS-REC reserves the right to:*

- *request access to any information or data at any time during the course or after completion of the study;*
- *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;*
- *withdraw or postpone approval if:*
  - *any unethical principles or practices of the study are revealed or suspected;*
  - *it becomes apparent that any relevant information was withheld from the EMS-REC or that information has been false or misrepresented;*
  - *submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or*
  - *new institutional rules, national legislation or international conventions deem it necessary.*

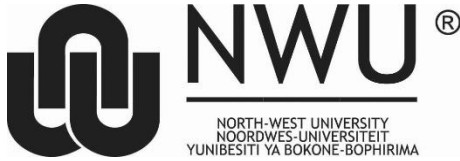
The EMS-REC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EMS-REC or the NWU-SCRE for any further enquiries or requests for assistance.

Yours sincerely,

**Mark Rathbone**  
Digitally signed by Mark Rathbone  
DN: cn=Mark Rathbone, o=North-West University, ou=Business management, email=mark.rathbone@nwu.ac.za, c=ZA  
Date: 2022.11.01 09:10:49 +0200

**Prof Mark Rathbone**  
**Chairperson: NWU Economic and Management Sciences Research Ethics Committee**

## ANNEXURE D: CONCENT FORM



North-West University (NWU)

PO Box 1174

Vanderbijlpark, 1900

016 910 3111

[www.nwu.ac.za](http://www.nwu.ac.za)

**Ethics clearance reference number: NWU-01841-22-A4**

### **Participant information leaflet and consent form**

**TITLE OF THE RESEARCH PROJECT: Analysing the antecedents of graduate labour immobility in South Africa.**

**Principal investigator:** Abigail Stiglingh-Van Wyk

**Supervisor:** Prof. Diana Viljoen-Bezuidenhout

**Co-Supervisor:** Prof. Elsabe' Keyser

You are being invited to take part in a research project that forms part of a post-graduate (PhD) study in Economic Sciences. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied and that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary**, and you are free to decline to participate. Declining participation will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Economics and Management Sciences - Research Ethics Committee of the North-West University (NWU-01841-22-A4)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

### **What is this research study about?**

The purpose of this study is to analyse the antecedents (causes) of graduate labour immobility in South Africa.

### **Why have you been invited to participate?**

You have been invited to participate because you are a graduate/alumnus of a South African Higher Education institution. You're an employed/unemployed graduate and we need your inputs to identify the antecedents of graduate labour immobility in South Africa.

### **What will your responsibilities be?**

You will be expected to answer all questions based on the study provided by the researcher. There are 5 sections to complete [A - F] with a total of **6-10 questions per** section to be completed. It will take you approximately **15-25 minutes** of your time to complete the questionnaire.

### **Who will have access to the data?**

Anonymity will be ensured (that is, in no way will your results be linked to your identity or mention made of your business). Data collection of the survey will contain no personal information that could be used to identify you. Confidentiality (that is, we assure you that we will protect the information we have about you) will be ensured by the way the data will be captured. The data will be stored on a password-protected computer. Only the researcher will have access to the data. Data will be stored for 5 years before being confidentially destroyed.

### **What will happen to the data?**

The data from this study will be reported in the following ways:

- An academic study and research articles. As previously mentioned, in all this reporting, you will not be identified in any way. The results of the study will be reported on an aggregate level.

### **Will you be paid/compensated to take part in this study and are there any costs involved?**

No, you will not be paid/compensated to take part in the study. The researcher will provide you with the electronic questionnaire link. Therefore, no cost will be involved to complete this questionnaire.

**Are there risks involved in you taking part in this research and what will be done to prevent them?**

This study has been classified as minimum risk and you are only asked to provide about 45 minutes of your time to complete the online questionnaire. The risks involved in taking part are minimal and alleviated by the anonymous nature of the survey.

**How will you know about the findings?**

The general findings of the research will be shared with you electronically in article form, after completion of the study.

**Is there anything else that you should know or do?**

If you have **ANY** questions or concerns, you are welcome to contact the researcher(s):

 <b>Researcher:</b> Abigail Stiglingh-Van der Merwe <i>PhD candidate:</i> Economics <a href="mailto:Abigail.Stiglingh@nwu.ac.za">Abigail.Stiglingh@nwu.ac.za</a> 016 910 3381	<b>Research supervisor:</b> Prof. D Viljoen-Bezuidenhout <i>Associate Professor:</i> School of Economic Sciences <a href="mailto:Diana.Viljoen@nwu.ac.za">Diana.Viljoen@nwu.ac.za</a> 016 910 3403	<b>Research Co-Supervisor</b> Prof E Keyser Associate Professor: School of Industrial Psychology and Human Resource Management <a href="mailto:Elsabe.Keyser@nwu.ac.za">Elsabe.Keyser@nwu.ac.za</a> 016 910 3423
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You will receive a copy of this information and consent form for your own records.

**Declaration by participant**

By signing below, I ..... agree to take part in the research study.

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/draw/produce visually) could be reproduced publicly and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) ..... on (*date*) ..... 20....

.....  
**Signature of participant**

.....  
**Signature of witness**

### **Declaration by researcher**

I ..... declare that:

- I explained the information in this document to .....
- I encouraged her to ask questions and took adequate time to answer them.
- I am satisfied that she adequately understands all aspects of the research, as discussed above.
- I did/did not use an interpreter.

Signed at (*place*) ..... on (*date*) ..... 20.....

.....  
**Signature of participant**

.....  
**Signature of witness**

**Inclusion criteria for participation:**

- You must be at least 18 years of age in order to complete this survey.
- You must be a graduate at any South African Higher & Further Education institution.
- Your only responsibility as a *willing* participant will be to complete this survey as honestly as is possible.

**Instructions:**

- Unemployed participants only complete Sections A, B, D & E
- Employed participants only complete Sections A, B, C & E

**Important notices, terms and conditions:**

- The study is part of a post-graduate qualification and is conducted by North-West University.
- Any personal identifying information such as demographics will remain confidential.
- This survey is voluntary, and you are under no obligation to complete it.
- There will be no negative consequences to you if you do not complete the survey.
- Results will only be used and presented in an anonymised format from the total sample. Therefore, your individual results will not be presented or released at any time.
- By completing this survey, you agree that the information you provide can be used for research purposes. Specifically for potential academic publications and conferences.
- There are no correct or incorrect answers to any of the questions in this questionnaire.
- This study has been approved by the Economic and Management Sciences Research Ethics Committee (EMS-REC) which reserves the right to audit this study to ensure compliance.
- The data will be securely stored at the University when collected.

Thank you for your time!

Without your participation this field of research cannot advance.

## ANNEXURE D: LETTER FROM THE LANGUAGE EDITOR

**expertenglisheditorscc**

### CERTIFICATE

Expert English Editors CC 2007/147556/23

Member: J R Levey

[editsa@gmail.com](mailto:editsa@gmail.com) [www.expertenglisheditors.co.za](http://www.expertenglisheditors.co.za)

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TO WHOM IT MAY CONCERN

This is to certify that this document has been edited for English style, language usage, logic and consistency; it is the responsibility of the author to manually accept or reject the suggested changes and interact with the comments to finalise the text and the references.

Title: Analysing the antecedents of graduate labour immobility in South Africa

Author: Abigail Stiglingh-Van Wyk

Document: PhD Thesis: Chapters 1 to 4 only.

Sincerely

Dr Felicity Horne, for Expert English Editors

B. A. (Wits); T.T.H.D (Wits); B.A. Hons (Unisa); M.A. (Unisa); D. Litt. et Phil. (Unisa)

2023-11-24

Members: J Levey. Reg. No: 2007/147556/23