

Rethinking Postgraduate Studies: A Critical Analysis of Career Advancement in South Africa's Corporate Sector

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Abstract: Pursuing full-time postgraduate studies implies delaying gaining work experience. This study examines the extent to which postgraduate studies correlate with career advancement in South Africa. We use a quantitative methodology to understand the correlation between postgraduate qualifications and senior management and executive positions at 27 of the Top 40 companies listed on the Johannesburg Stock Exchange (JSE). We also identify qualifications required by recruiters for jobs advertised in January and May 2023 and find that less than 1% of advertised jobs required master's and PhD qualifications. We also find that most senior managers and executives do not hold advanced education qualifications. We concluded that these JSE firms and the labour market in general place a greater value on value work experience and expertise acquired through practice, rather than study. The study casts doubt on the importance of advanced education qualifications to acquire jobs or career advancement in South Africa.

Key words: Johannesburg Stock Exchange; PhD; Higher Education; Labour Market Outcomes JEL Classification: I23, I26

1. Introduction

To maintain and improve their competitiveness, post-industrial economies have shifted to a knowledge-based model (Mikhailov & Kopylova, 2020). As a result, attempts to increase the degree of national prosperity have prioritised workforce skill improvement (Bawono, 2021; Chankseliani, Qoraboyev, & Gimranova, 2021). Similarly, several governments have stepped up their demands on schools to improve the employability of their graduates. many university graduates still struggle to find work after earning the top degrees in their respective professions because of the many challenges they face when moving from academia to the business sector (Alpaydın and Kültür, 2022). A rising number of African countries have seen violent youth rebellions spearheaded by unemployed graduates, proving that South Africa is not alone in its high unemployment rate among recent graduates (Gómez & Irewole, 2023).

Post-industrial economies have had to transform themselves into knowledge-based ones, to stay competitive (Mikhailov & Kopylova, 2020).

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Post-industrial economies have had to transform themselves into knowledge-based ones, to stay competitive (Mikhailov & Kopylova, 2020). Therefore, improving the skills of the workforce has emerged as a top priority towards efforts to raise the level of national prosperity (Bawono, 2021; Chankseliani, Qoraboyev, & Gimranova, 2021). In the same vein, many governments have increased the pressure on educational institutions to raise the level of employability of graduates. The transition that university graduates make from the academic to the corporate world has been met with various obstacles- with many failing to secure employment even after obtaining the highest qualification in their fields of study (Alpaydin, & Kültür, 2022). The problem of high unemployment rates among recent graduates is not unique to South Africa; it is common in other countries too, and this is evidenced by the increasing violent youth upheavals often led by unemployed graduates across Africa (Gómez & Irewole, 2023).

From a corporate perspective, most graduates are lacking the fundamental skills. According to Statistics South Africa (2022), most of the young individuals who are unemployed are in their prime working years. This suggests that young people are not gaining the appropriate skills and information to enable them to successfully integrate into the labour market. It also suggests the need for higher education institutions to provide appropriate education to create citizens who can make significant contributions to the development and expansion of the economy (Chankseliani, Qoraboyev, & Gimranova, 2021).

Considering the above, new trends and developments are appearing- the labour market is demanding education that is both of high quality and of relevance (Lauder, & Mayhew, 2020). Because of the advancement in science and technology, and the subsequent need for new skills and capabilities, many people are pursuing postgraduate studies to maintain their standards of living and remain competitive in the job market (Tran, Rahimi, Tan, Dang, & Le, 2020; Burke, Scurry, & Blenkinsopp, 2020). It does however raise questions of why people return to school for postgraduate studies, and what motivates them to take on the additional function as a student, despite them already juggling many other duties and responsibilities.

Pursuing postgraduate studies historically presents many opportunities for individuals, the assumption being that the more one progresses academically, the better the chances of enjoying a successful career (Sarrico, 2022; Copeland, 2023). Going through postgraduate studies is an emotional journey that is characterised by stress, trauma, anxiety, and loneliness, among others (Machin, & Parsons-Smith, 2019; Atkinson et al., 2022). The decision to pursue full time postgraduate studies involves a trade-off between studying further, with a view to getting higher future earnings, versus beginning a career upon completing an undergraduate degree and gaining work experience (assuming one secures employment (Witteveen, & Attewell, 2021). However, in a country like South Africa, unemployment increases with each group of graduates. A study by Mseleku (2022) found that graduates lose hope in finding employment, as youth graduate unemployment rises in South Africa. The participants ascribed their unemployment to a variety of issues including the lack of demand for their talents on the job market, a mismatch in their skill sets, and a lack of work experience (Habiyaemye, Habanabakize & Nwosu, 2022).

In this study, we investigated the relationship between postgraduate qualifications (master's and PhD) and career progression, focusing on senior management and executive positions. To achieve this, we examined job listings on a South African website requiring master's or PhD qualifications, and we surveyed senior managers and executives from Johannesburg Stock Exchange Top 40 listed companies holding such

qualifications. Our research aimed to answer the question: How do postgraduate qualifications impact career progression in South Africa?

The motivation for this study is driven by the fact most of the studies on this topic have been in international countries - there is sparse research for South Africa. In addition, the authors have spent many years living in South Africa and working in the country's higher education, thus this topic is one that is close to their hearts. The significance of this is in providing empirical evidence that would guide prospective postgraduate students to make decisions regarding pursuing advanced study. We also anticipate that higher education institutions will benefit from this study's results, leading to evaluations of the qualifications offered in terms of whether they provide what the corporate sector requires.

2. Literature Review

2.1 Employability Development Opportunities and Career Advancement

Pitan and Muller (2020) found that employability development opportunities (EDOs) have a combined impact on students' employability with the most significant factors being curriculum, career development learning, personal development planning, and work experience. Graduating higher education students should have the graduate attributes (abilities, and character traits, in addition to knowledge of the material studied) that will help them thrive in the real world and in their careers (Shalyefu, & Kadhila, 2018; Halibas, et al., 2020).

The career construction hypothesis states that adaptation to a sequence of transitions—from school to work, from job to job, and from occupation to occupation—drives career advancement through person-environment integration (Savickas, 1997). Different people build up various kinds of psychological resources to handle the stresses, upheavals, and new responsibilities that come with climbing the corporate ladder. For the better part of a century, academics have been using metrics like salary, number of promotions, and level of job satisfaction to gauge career advancement. These are undeniably important signs, but these methods don't capture the depth and variety of what people think about when they think about their success on the job. Numerous factors are considered by individuals when assessing their career progress, including financial stability, financial success, learning and development,

2.2 Career Adaptability

Established in the career construction theory, career adaptability is defined as the set of psychosocial resources that an individual has at their disposal to manage the demands of professional progression, as well as changes in the workplace and traumatic experiences throughout employment (Peng, Song, & Yu, 2021). As a result, there are qualities that facilitate both present and future changes in the workplace are relevant to the self-regulatory concept of career adaptability. These are, paying attention, taking charge, having faith in yourself, and being curious (Savickas, 2013). Being concerned means keeping an eye on the future and realising that your actions now are influencing your career trajectory. Possessing self-control and taking ownership of one's work are qualities that employers look for in candidates, while a genuine curiosity in one's surroundings and one's own identity can lead to fruitful career exploration.

The ability to persevere in the face of adversity is a key component of professional confidence. When faced with difficult or novel job growth or transition challenges, people utilise these self-regulatory mechanisms to find answers (Savickas & Porfeli, 2012). When it comes to various occupational outcomes, research has shown that career flexibility elements are valuable. Tolentino et al. (2014), for example, found that professional optimism, learning goal orientation, and proactive personality were significantly connected with the four career adaptability variables. Concern and confidence, two aspects of career adaptability, were said by Zacher (2014) to predict career happiness and self-reported career performance among a varied sample of Australian professionals. These dimensions outperformed the Big Five personality traits and core self-evaluations.

In a separate study, de Guzman and Choi (2013) found that among a sample of technical school students, the four career adaptability factors predicted teamwork employability abilities. Concern and control were found to directly predict job search efficacy in a study of Chinese university graduates. Control was also found to indirectly affect person-organisation fit, demands-ability fit, and needs-supply fit (Guan et al., 2013). Additionally, it has been discovered that career adaptability has an inverse relationship with work stress and a positive relationship with satisfaction, indicating that it is a method through which people locate their perfect jobs (Johnston, Luciano, Maggiori, Ruch, & Rossier, 2013). In a similar vein, Maggiori, Johnston, Krings, Massoudi, and Rossier (2013) found that resources for career adaptation were positively connected to professional well-being and partially mediated the relationship between job pressure and job insecurity.

2.3 Relationship Between Postgraduate Qualifications and Career Advancement

Doctoral programmes and other forms of postgraduate education are essential for the development of research knowledge and abilities. The economy benefits from the human capital that is bestowed upon doctoral graduates (Etomes, & Molua, 2023). PhD programmes also help students develop their critical thinking and creative capacities, which can have a positive effect on how societies view and construct their social and cultural fabric. Also, "acknowledgement of the important role of the training of doctoral graduates also recognises that a knowledge economy requires research careers beyond the traditional academic career" (Alfano, Gaeta & Pinto, 2021).

However, despite the acknowledgement of the importance of doctoral studies, numerous studies demonstrate that a broad sample of PhD holders with a variety of specialties, discover that working in a non-academic setting is associated with a higher likelihood of suffering a job-education mismatch. As a result, it is discovered that doctoral graduates working for universities express more satisfaction with the match between their doctoral qualification and their jobs. In addition, studies also highlight that PhD holders working in the academic sector have a better chance of utilising the knowledge and skills acquired from their PhDs than those in non-academic careers, (Parenti et. al. 2020).

2.3.1 South African Doctorates and Employability

Wingfield, (2019) indicated that it is expensive (around R1 million per graduate) to undertake postgraduate studies, an impossible for students from poor families without receiving external financial assistance. Even

for those students who have better access to funding, expenses incurred in postgraduate study must be factored against potential years lost where one could have been climbing the career ladder.

Wingfield (2019) also noted that from an individual perspective, there are good and bad reasons to undertake a PhD. The good reasons include achieving a significant goal in terms of a research output, publications and in many cases, solving an important problem. Doing research towards a PhD allows one to be curious, literally every day. It is also the first step in becoming part of the global network of researchers. Becoming part of a global community can be very gratifying. The bad reasons would include the assumption that having a PhD will enable one to earn a huge salary. This is not always the case. Another factor is peer pressure, which can lead students to register for a PhD. Sometimes the pressure comes from family or to change jobs or career. Another bad good reason is when people decide to do a PhD because they do not like the job that they are doing. Wingfield, (2019) adds that undertaking a PhD study should only be considered if you are passionate about research and understand that it really takes a huge amount of time and energy as it is after all the ultimate degree.

The South African government has identified that producing senior degree graduates as an important goal. For instance, the Department of Science and Innovation suggested that universities need to increase their output of PhD graduates to 100 graduates per million people. Now South Africa has 46 doctoral graduates per million people, this is one tenth of the figure for Switzerland (465) and United Kingdom (409) (Wingfield, 2019). The new South African target would take the expected output to more than 5000 PhD graduates every year. The South African government's argument is that senior degrees are drivers of the academic pipeline. If the focus is on getting more PhDs, then universities will also see increases in undergraduates. In this regard, in December 2023, President Ramaphosa launched a R1bn Presidential PhD Initiative to drive science, technology and innovation in the country (Department of Science and Innovation, 2023). However, while one may support the idea of PhDs being a driver, the current targets will probably not be achieved for many years, while the quality of degrees is also a major concern, if it becomes a matter of chasing numbers.

From the above, postgraduate studies seem to be mainly providing career advancement benefits for careers within the research and academic fields, a finding that we will test using data in the following sections.

3. Research Methods

This study used a quantitative methodology to answer the research question. The data used to answer our research question was collected from two sources. The first source was the Johannesburg Stock Exchange's Top 40 Companies Index, where we gathered information on gender, race, and the qualifications (chartered accounting (CA), master's and PhD) held by senior management and directors; this index lists the Top 40 companies by market capitalisation. The second source was Careers24.com, a South African job search website from where we recorded the total number of jobs listed, and also those jobs requiring master's and PhD.

The sampling method used was purposive, as we were looking for specific characteristics on the websites of the Top 40 companies. However, we discovered that 13 of these companies do not provide data on the qualifications of their executive committee members and the board of directors on their websites.

Therefore, our final sample has 27 companies out of the 40 that we use in the analysis. (their names are given in the first column of Table 1).

We also counted the total number of jobs listed on Careers24.com between 10 Jan – 10 Feb 23 and we did the same for the period 6 May – 6 June 2023. The reason for looking at two different periods was that the earlier period may reflect a higher number of opportunities available as many companies open positions for employees to start at the beginning of the year. Including the second period of study in the middle of year balances the analysis as seasonal and business cycle changes may affect the number of jobs available.

Table 1 below reports the name of the sampled company in column 1, the proportions of executives and directors in each company who are male in the second column, the proportion of females in column 3, and the proportions which hold a master’s or PhD qualification in the fourth column, and finally, the proportion holding a chartered accounting (CA) qualification in the fifth column (note: sometimes we may refer to a percentage instead of a proportion in the forthcoming discussion). A proportion of 1 would be the equivalent of 100%. We include the CA for two reasons; firstly, anecdotal evidence suggests that it is a popular qualification amongst senior leadership of JSE listed companies (one needs to possess an honours degree in accounting, complete a three-year internship and pass competency tests to qualify as a CA). The second reason is that as the CA is a professional designation, and the South Africa Qualifications Authority (SAQA) has made it clear that the CA is not at the same National Qualification Framework (NQF) level as a master’s degree (SAQA, 2022). The CA is the same NQF level 8 as the honours degree and including it in the analysis is useful for comparison purposes.

Because this study does not include human observation, our university does not require the study to apply for ethical clearance. We proceed with presenting the results and discussion below.

4. Results and Discussion

Table 1: Study sample statistics (biographical and qualifications)

Company name	Males	Females	M and PHD	CA
AB BEVGENDER	0.8	0.2	0.56	0.00
ABSA	0.67	0.23	0.46	0.54
Anglo American	0.81	0.29	0.5	0.13
Anglo American Platinum	0.67	0.23	0.19	0.6
Anglo Gold Ashanti	0.64	0.26	0.64	0.2
Aspen Pharmacare	0.8	0.2	0.5	0.3
BAT	0.92	0.08	0.76	0.00
BHP	0.54	0.46	0.36	0.08
BiDcorp	0.7	0.3	0.4	0.5
BidVest	0.3	0.7	0.4	0.4
Clicks_Group	0.56	0.44	0.44	0.44
Compagnie_Financiere_Richemont	0.86	0.14	0.5	0.07
EXXARO	0.56	0.44	0.56	0.3

First_Rand	0.81	0.19	0.36	0.55
Gold_Fields	0.6	0.4	0.8	0.22
Growthpoint	0.7	0.3	0.25	0.6
Impala_Platinum	0.67	0.23	0.67	0.18
Investec_Ltd	0.58	0.42	0.25	0.75
MONDI_PLC	0.56	0.44	0.5	0.13
Mr Price Group	0.72	0.28	0.27	0.45
Rand Merchant Bank	0.71	0.29	0.43	0.14
Sanlam	0.76	0.24	0.41	0.29
SASOL	0.75	0.25	0.58	0.17
Shoprite	0.43	0.57	0.29	0.57
Standard Bank	0.75	0.25	0.625	0.25
Vodacom	0.58	0.42	0.42	0.42
Woolworths	0.75	0.25	0.3	0.27

Source: Authors' calculations from the websites of companies listed in the table

Table 1, column 4 also shows that the listed entities with the highest proportions of senior management that holds advanced degrees are of Gold Fields' (0.80) and British American Tobacco (BATs) (0.76), followed by Anglo Gold Ashanti (0.64) and Standard Bank (0.63). Upon further scrutiny, we find that only 11 of the 27 featured companies have more proportions of senior management and executives that hold advanced qualifications that exceed 0.5. This result confirms one of our assumptions prior assumptions; that is, the demand for, or the 'need' for master's and PhD qualifications to be senior managers and executives of JSE listed companies is low. The results in Table 1 also disagree with a second of our prior assumptions; that is, we expected the CA to be by far the most common qualification amongst senior managers and executives on the JSEs Top 40 Index. However, the results show that only 6 companies have more than 50% of their senior management and executives holding the CA qualification.

In the second part of our results, we focus on the tabulation of jobs requiring advanced qualifications that are advertised on a South African jobs website, Careers24, whose results are listed in Table 2 below.

Table 2: Careers24.com job listings

Period	Total listed Jobs	Jobs Requiring Master's	Jobs Requiring PhD
10 Jan – 10 Feb 23	15721	35	20
06 May – 06 Jun 23	18807	54	23

Source: Authors' calculations from information retrieved from Careers24.com

We count the number of jobs requiring master's and PhD on Careers24.com and we report some surprising results that are confirmed by the two-time counting of listings. Table 2 shows us that the percentage of jobs that require master's ($35/15721 = 0.22\%$) and PhD ($20/15721 = 0.12\%$) qualifications on a February 2023 job listings website is tiny. Though the total number of job listings between February 2023 and June 2023 increased by over 3000 to 18807, the numbers of jobs requiring master's and PhD remained miniscule. The Careers24.com results suggests that master's and PhD are not essential to secure jobs in general as these qualifications were required for a tiny fraction of academic and/ or highly specialised jobs

(such as research or analytical jobs). Our results contrast with those of Santos, Horta, & Heitor, (2016) who report a shortage of PhDs in Portugal with the differences likely caused by the nature of Portugal's status as an advanced economy (that would have more demand for PhDs), in comparison to South Africa's developmental status. For South Africa, Breier, & Herman, (2017) report a shortage of PhD candidates who are available to fill designated academic positions at South African universities.

To add further context to our results, we consider a different perspective that is supported by extensive work done by Goneos-Malka, (2018). It could be that we are not seeing a greater percentage of advertised master's and PhD jobs because of the nature of the labour market – some employers may be biased against master's and PhDs because they 'feel threatened' by such candidates. Goneos-Malka, (2018) further reports that PhD candidates have also been termed as 'overqualified' and are overlooked for certain positions. These perceptions against the PhD are perplexing, particularly when one considers the calls by Universities South Africa (2023), (a body representing the country's 26 public universities), that the country is facing a shortage of PhD graduates. The body further calls for increased large government funding to train more PhDs, a call that the country's President Ramaphosa has responded to by pledging R1 billion (Department of Science and Innovation, 2023).

5. Conclusion

The changing nature of the labour market due to economic and technological developments requires the education system to change accordingly for graduates to remain competitive. While much literature has been written about why students would prefer to, desire, or need to acquire advanced education, this study has added to our knowledge of what the South African labour market opportunities are for graduates with master's and PhD qualifications. The results provide evidence that master's and PhD qualifications are in little demand in the labour market, as the number of jobs that ask applicants to hold advanced qualifications is less than one percent of the number of jobs that are available on the jobs website that was examined in this study. Furthermore, it seems that top level managerial/ oversight jobs for JSE Top 40 listed companies do not require advanced qualification either – corporate leadership appears tied to skills or expertise and experience, rather than education level. Thus, it may be necessary to reconsider the pursuit of advanced qualifications as our data showed that they are generally demanded by niche fields in academia and research.

The study makes two recommendations related to the results of this study; firstly, we would encourage students who are considering studying advanced qualifications to try acquiring work experience for a few years before studying further. If securing employment is not possible then further study is advised. Secondly, we encourage students to spend extensive time researching their desired careers before embarking on university education; doing so would reduce mismatches in the labour market and help students to make informed decisions before continuing with graduate studies.

Suggestion for further research: future work could extend this study by doing a cohort, long term study of career progression on the JSE. Here, participants would be tracked over several years to get a better understanding of their JSE labour market prospects as they acquire higher education qualifications. The study is limited by not including qualitative data collection as interviews could have provided richer

insights into the study. The study's results are also limited to South Africa as the sample is country specific, limiting generalisability.

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