THE ASSOCIATION BETWEEN PSYCHOSOCIAL CAREER PREOCCUPATIONS AND PSYCHOLOGICAL CAREER RESOURCES

by

ASHLIN GOVENDER

submitted in accordance with the partial requirements for the degree of

MASTER OF COMMERCE

in the subject

INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF. M COETZEE

JANUARY 2020

DECLARATION

I, Ashlin Govender, student number 49972103, declare that this dissertation of limited scope,

"The association between psychosocial career preoccupations and psychological

career resources", is my own work, and that all the sources that I have used or have quoted

from have been indicated and acknowledged by means of complete references. The

dissertation has not in part or in full, been previously submitted for any other degree or

examination at this or any other university.

I further declare that I submitted the dissertation to originality checking software and that it

falls within the accepted requirements for originality.

I further declare that ethical clearance (see attached ethical clearance certificate in Appendix)

to conduct the research has been obtained from the Department of Industrial and

Organisational Psychology, University of South Africa. I also declare that the study has been

carried out in strict accordance with the Policy for Research Ethics of the University of South

Africa (Unisa). I took great care to ensure that the research was conducted with the highest

integrity, taking into account Unisa's Policy for Infringement and Plagiarism.

Signed: Ashlin Govender

Ashlin Govender

_20 January 2020__

Date

ii

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the following:

- "Om Namah Shivaya" ("O salutations to the auspicious one"). First and foremost, I would like to thank GOD for being my saviour, for blessing me with the competencies to complete this qualification, and for shining his light of divine love on my life.
- My parents for encouraging me to study even when we could afford little and for purchasing *The World Book Encyclopedia* when I was a child, which taught me to read, be inquisitive, learn and upskill myself.
- My darling wife Tammy, you are my pillar of strength; thank you for encouraging and supporting me during this journey. Thank you for being the person that you are.
- Prof. Melinde Coetzee, thank you for your patience, guidance, support and encouragement. Thank you for reigniting my passion for research and statistics. May God always bless and protect you and your loved ones.
- Ama, for your wisdom, love and guidance.
- To all my family and friends for their moral support and motivation.

ABSTRACT/SUMMARY

THE ASSOCIATION BETWEEN PSYCHOSOCIAL CAREER PREOCCUPATIONS AND PSYCHOLOGICAL CAREER RESOURCES

by

A. Govender

SUPERVISOR : Prof. M. Coetzee

DEPARTMENT : Industrial and Organisational Psychology

DEGREE : MCom in Industrial and Organisational Psychology

The study explored the association between psychological career resources and psychosocial career preoccupations. The participants comprised a convenience sample of N=314 individuals of varying race, age, gender and job-level groups from the South African workforce. Multiple regression analysis showed that career values positively predict career preoccupations; career preferences positively predict career adaptation concerns, and career drivers negatively predict career adaptation concerns, while career harmonisers negatively predict work/life adjustment concerns. Tests for significant mean differences revealed that males and females did not differ significantly regarding their psychological career resources and psychosocial career preoccupations. However, significant differences were found for race, age and job level regarding psychosocial career preoccupations and psychological career resources (with the exception of job level which yielded significant differences for psychosocial career preoccupations only). The results provide new insights that may inform recommendations for career development practices.

KEY TERMS

Psychological career resources, psychosocial career preoccupations, career establishment preoccupations, career adjustment preoccupations, work/life adjustment preoccupations, career preferences, career values, career enablers, career drivers, career harmonisers

OPSOMMING

DIE VERBAND TUSSEN PSIGOSOSIALE LOOPBAANPREOKKUPASIES EN SIELKUNDIGE LOOPBAANHULPBRONNE

deur

A. Govender

TOESIGHOUER : Prof. M. Coetzee

DEPARTEMENT : Bedryf- en Organisasiesielkunde

GRAAD : MCom in Bedryf- en Organisasiesielkunde

Die studie het 'n ondersoek na die verband tussen sielkundige loopbaanhulpbronne en psigososiale loopbaanpreokkupasies behels. Die deelnemers het uit 'n gerieflikheidsteekproef van N = 314 individue van verskillende ras-, ouderdoms-, geslags- en posvlakgroepe in die Suid-Afrikaanse werksmag bestaan. 'n Meervoudige regressieontleding het getoon dat loopbaanwaardes loopbaanpreokkupasies positief voorspel, dat loopbaanvoorkeure loopbaanaanpassingskwellinge positief voorspel dat loopbaanaandrywers en loopbaanaanpassingskwellinge negatief voorspel. Loopbaanharmonieërders voorspel werk/lewe-aanpassingskwellinge negatief. Toetse vir beduidende gemiddelde verskille het getoon dat mans en vroue nie beduidend van mekaar verskil wat hulle sielkundige loopbaanhulpbronne en psigososiale loopbaanpreokkupasies betref nie. Beduidende verskille aangaande ras, ouderdom en posvlak het egter ten opsigte van psigososiale loopbaanpreokkupasies en sielkundige loopbaanhulpbronne aan die lig gekom (met uitsondering van posvlak, wat slegs ten opsigte van psigososiale loopbaanpreokkupasies beduidende verskille opgelewer het). Die resultate het nuwe insigte opgelewer wat as grondslag vir aanbevelings aangaande loopbaanontwikkelingspraktyke gedien het.

SLEUTELTERME

Sielkundige loopbaanhulpbronne, psigososiale loopbaanpreokkupasies, loopbaanvestigingspreokkupasies, loopbaanaanpassingspreokkupasies, werk/lewe-aanpassingspreokkupasies, loopbaanvoorkeure, loopbaanwaardes, loopbaaninstaatstellers, loopbaanaandrywers, loopbaanharmonieërders

IQOQO/AMAFUPHI

UBUDLELWANO PHAKATHI KOBIZO LOMSEBENZI OLUTHANDAYO KANYE NEMITHOMBO ESEKELA IMPUMELELO YOBIZO LOMSEBENZI

Ibhalwe ngu

A. Govender

UMELULEKI: Prof. M. Coetzee

UMNYANGO: Industrial and Organisational Psychology

IZIQU : MCom in Industrial and Organisational Psychology

Isifundo socwaningo sihlola ubudlelwano phakathi kwemithombo esekela impumelelo yobizo lomsebenzi Kanye nobizo lomsebenzi oluthandayo. Abadlalindima baqukethe isampuli efanele ethi N = 314 yabantu abehluka ngokobuhlanga, ngeminyaka, ngobulili Kanye nangamaqembu ezinga lomsebenzi avela kwinani eliphelele labasebenzi beNingizimu Afrika. Uhlelo lokuhlaziya i-- *Multiple regression analysis* luye lwakhombisa ukuthi izimpawu ezinhle zobizo lomsebenzi ziye zabikezele kahle izinkinga ezimayelana nokujwayela ubizo lomsebenzi, kanti izimpawu ezidonsela umuntu kubizo lomsebenzi ziye zabikezela kabi ngezinkinga ezimayelana nokujwayela ubizo lomsebenzi.

Izimpawu ezinceda ukujwayela ubizo lomsebenzi ziye zabikezela kabi ngezinkinga ezimayelana nokushintsha umsebenzi/impilo ukuze ujwayele ubizo lomsebenzi. Imisebenzi yokuhlola ukwehlukahlukana kwezimpawu ze-*significant mean differences* ziye zaveza ukuthi abantu abesilisa kanye nabesifazane abakaze behluke kakhulu mayelana nemithombo esekela impumelelo yobizo lomsebenzi kanye nobizo lomsebenzi oluthandayo.. Yize-kunjalo, izimpawu ezehluka kakhulu ziye zavezwa mayelana nobuhlanga, neminyaka kanye nezinga lomsebenzi ngokobizo lomsebenzi oluthandayo kanye nemithombo esekela ubizo lomsebenzi (ngaphandle nje kwesigaba somsebenzi, sona esiye sadala umehluko omkhulu ngokobizo lomsebenzi oluthandayo kuphela). Imiphumela inikeze ulwazi olusha elisekela izinqumo ezimayelana nezingqubo zokuthuthukisa ubizo lomsebenzi.

AMAGAMA ASEMQOKA

Imithombo esekela ubizo lomsebenzi, ubizo lomsebenzi oluthandayo, izimpawu ezigqugquzela ubizo lomsebenzi olukhethayo, izimpawu ezinceda ukujwayela ubizo lomsebenzi, izimpawu ezinceda ushintshe impilo/umsebenzi ngokobizo lomsebenzi, ubizo lomsebenzi oluthandayo, izimpawu ezinhle zobizo lomsebenzi, izimpawu ezinceda ukuthi

uhambisane nobizo lomsebenzi, izimpawu ezip, izimpawu eziphoqa umuntu ukuthi ulandele ubizo lomsebenzi, izimpawu ezinceda ukujwayela umsebenzi

TABLE OF CONTENTS

DECLA	RATION	II
ACKNO	WLEDGEMENTS	III
ABSTR	ACT/SUMMARY	IV
LIST O	F FIGURES	IX
LIST O	F TABLES	X
СНАРТ	ER 1: SCIENTIFIC OVERVIEW OF THE RESEARCH	
1.1	BACKGROUND AND MOTIVATION FOR THE RESEARCH	1
1.2	PROBLEM STATEMENT	8
1.2.1	RESEARCH QUESTIONS WITH REGARD TO THE LITERATURE REVIEW	9
1.2.2	RESEARCH QUESTIONS WITH REGARD TO THE EMPIRICAL STUDY	9
1.3	AIMS OF THE RESEARCH	9
1.3.1	GENERAL AIM	10
1.3.2	SPECIFIC AIMS	10
1.3.2.1	LITERATURE REVIEW	10
1.3.2.2	EMPIRICAL STUDY	10
1.4	PARADIGM PERSPECTIVE	11
1.4.1	LITERATURE REVIEW	11
1.4.2	EMPIRICAL STUDY	11
1.5	STATEMENT OF SIGNIFICANCE	13
1.6	RESEARCH DESIGN	13
1.6.1	RESEARCH APPROACH	14
1.6.2	METHODS USED TO ENSURE VALIDITY AND RELIABILITY	16
1.6.2.1	VALIDITY	16
1.6.2.2	RELIABILITY	17
1.6.3	RESEARCH VARIABLES	17
1.6.4	UNIT OF ANALYSIS	18
	ETHICAL CONSIDERATIONS	
1.6.6	DELIMITATIONS	19
1.7	RESEARCH METHOD	19
1.8	CHAPTER LAYOUT	19
CHAPT	ER 2: LITERATURE REVIEW	
2.1	THE META-THEORETICAL CONTEXT OF THE VARIABLES TO BE STUDIED	. 22
2.1.1	CAREERS IN THE 21ST CENTURY WORLD OF WORK	23

2.1.2	THE PROTEAN CAREER AND BOUNDARYLESS CAREER	. 24
2.1.3 IMPAC	FORCES THAT ARE SHAPING THE BUSINESS AND ENVIRONMENT AND TING ON CAREERS	. 24
2.1.3.1	RAPID TECHNOLOGICAL INNOVATION AND PERMEATION	. 25
2.1.3.2	GLOBALISATION	. 26
2.1.3.3	SOCIODEMOGRAPHIC CHANGES	. 28
2.1.4	SECTION SYNTHESIS	. 29
2.2	PSYCHOLOGICAL CAREER RESOURCES	. 30
2.2.1	CONCEPTUALISATION OF PSYCHOLOGICAL CAREER RESOURCES	. 30
2.2.2	THEORETICAL MODEL OF PSYCHOLOGICAL CAREER RESOURCES	. 30
	CAREER VALUES AND CAREER PREFERENCES	
2.2.2.2	CAREER DRIVERS	. 32
2.2.2.3	CAREER ENABLERS	. 33
2.2.2.4	CAREER HARMONISERS	. 34
2.2.3	PREVIOUS RESEARCH ON PSYCHOLOGICAL CAREER RESOURCES	. 35
2.2.3.1	AGE	. 36
2.2.3.2	RACE	. 36
2.2.3.3	GENDER	. 37
2.2.3.4	JOB LEVEL	. 37
2.2.4	SECTION SYNTHESIS	. 38
2.3	PSYCHOSOCIAL CAREER PREOCCUPATIONS	. 38
2.3.1	CONCEPTUALISATION OF PSYCHOSOCIAL CAREER PREOCCUPATIONS	. 38
2.3.2	THEORETICAL MODEL OF PSYCHOSOCIAL CAREER PREOCCUPATIONS	. 39
2.3.3	PREVIOUS RESEARCH ON PSYCHOSOCIAL CAREER PREOCCUPATIONS	. 42
2.3.3.1	AGE	. 43
2.3.3.2	RACE	. 43
2.3.3.2	GENDER	. 44
2.3.3.4	JOB LEVEL	. 44
2.3.4	SECTION SYNTHESIS	. 44
2.4 PSYCH	LINK BETWEEN PSYCHOSOCIAL CAREER PREOCCUPATIONS AND IOLOGICAL CAREER RESOURCES	. 45
2.5	CHAPTER SUMMARY	. 46
СНАРТ	ER 3: RESEARCH ARTICLE	
3.1	INTRODUCTION	. 48
3.1.1	OBJECTIVE OF THE STUDY	. 50
312	PSYCHOLOGICAL CAREER RESOURCES	50

3.1.3	PSYCHOSOCIAL CAREER PREOCCUPATIONS	51
3.1.4 CAREE	PSYCHOLOGICAL CAREER RESOURCES IN RELATION TO PSYCHOSOCIAL R PREOCCUPATIONS	
3.2	METHOD	54
3.2.1	PARTICIPANTS AND PROCEDURE	54
3.2.2	CONSIDERATIONS OF ETHICS	54
3.2.3	MEASURING INSTRUMENTS	54
3.2.4	STATISTICAL ANALYSIS	55
3.3	RESULTS	55
3.3.1	DESCRIPTIVE STATISTICS AND BIVARIATE CORRELATIONS	55
3.3.2	MULTIPLE REGRESSION ANALYSIS	57
3.3.3	TESTS FOR SIGNIFICANT MEAN DIFFERENCES	58
3.3.3.1	GENDER	58
3.3.3.2	RACE	59
3.3.3.3	AGE	62
3.3.3.4	JOB LEVEL	64
3.4	DISCUSSION	66
3.5	IMPLICATIONS FOR CAREER DEVELOPMENT PRACTICE	68
3.6 FUTUR	LIMITATIONS OF THE RESEARCH DESIGN AND RECOMMENDATIONS FOR E RESEARCH	68
3.7	CONCLUSION	69
3.8	ACKNOWLEDGEMENTS	69
3.9	DECLARATION OF CONFLICTING INTERESTS	69
3.10	FUNDING	69
3.11	CHAPTER SUMMARY	69
3.12	REFERENCES	70
СНАРТ	ER 4: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	
4.1	CONCLUSIONS	76
4.1.1	CONCLUSIONS RELATING TO THE LITERATURE REVIEW	76
	TO CONCEPTUALISE PSYCHOSOCIAL CAREER PREOCCUPATIONS AND HOLOGICAL CAREER RESOURCES FROM A THEORETICAL PERSPECTIVE	76
	TO CONCEPTUALISE THE IMPLICATIONS OF THE THEORETICAL LINK EEN THE TWO CONSTRUCTS FOR CAREER DEVELOPMENT PRACTICE	77
4.1.2	CONCLUSIONS RELATING TO THE EMPIRICAL STUDY	78
BETWE	TO EXPLORE THE NATURE AND MAGNITUDE OF THE ASSOCIATION EEN PSYCHOSOCIAL CAREER PREOCCUPATIONS AND PSYCHOLOGICAL ER RESOURCES IN A SAMPLE OF SOUTH AFRICAN EMPLOYEES.	78

AND J	: TO EXPLORE HOW INDIVIDUALS FROM DIFFERENT GENDER OB LEVEL GROUPS DIFFER SIGNIFICANTLY WITH REGARD TO 1 HOLOGICAL CAREER RESOURCES AND PSYCHOSOCIAL CAREE	HEIR
PREO(CCUPATIONS	79
	RE RESEARCH AND CAREER DEVELOPMENT PRACTICES	
4.2	LIMITATIONS	80
4.2.1	LIMITATIONS OF THE LITERATURE REVIEW	80
4.2.2	LIMITATIONS OF THE EMPIRICAL STUDY	80
4.3	RECOMMENDATIONS	81
4.3.1 PRACT	RECOMMENDATIONS FOR CAREER DEVELOPMENT GUIDANC	
4.3.2	FUTURE RESEARCH	81
4.4	INTEGRATION OF THE STUDY	82
4.5	CHAPTER SUMMARY	82
	REFERENCES	83
	APPENDIX A	104
	APPENDIX B	105

LIST OF FIGURES

Figure 1.1	Structure of the study (chapter layout)	2
Figure 2.1	Psychological career resources (Coetzee, 2008)	3
Figure 2.2	Psychosocial career preoccupations (Coetzee, 2014b)	4

LIST OF TABLES

Table 3.1	Descriptive Statistics, Cronbach Alpha Coefficients and Bivariate Correlate	tions 56
Table 3.2	Multiple Regression Analysis	58
Table 3.3	ANOVA: Test for Significant mean differences: Race	60
Table 3.4	Post hoc Test Tukey HSD: Test for Significant mean differences: Race	61
Table 3.5	ANOVA: Test for Significant mean differences: Age	63
Table 3.6	Post-hoc Test Tukey HSD: Test for Significant mean differences: Age	64
Table 3.7	ANOVA: Test for Significant mean differences: Job level	65
Table 3.8	Post hoc Test Tukey HSD: Test for Significant mean differences: Job leve	el 65

CHAPTER 1 SCIENTIFIC OVERVIEW OF THE RESEARCH

The context of this research is the career development of employees. Specifically, the research was interested in exploring the association between individuals' psychosocial career preoccupations and psychological career resources with a view to informing human resource (HR) practices regarding the career development of employees. Individuals' psychosocial career preoccupations are seen as an outcome of their psychological career resources; the basic premise being that having well-developed psychological career resources may help reduce career development concerns (as represented by the construct of psychosocial career preoccupations) as factors influencing individuals' career satisfaction. This chapter provides the background and motivation for the research study, formulates the research problem statement, states the theoretical and empirical aims of the study, outlines the paradigm perspective and explicates the statement of significance. The research design and research methodology are also discussed. The chapter concludes with a description of the chapter layout of this dissertation, as well as a chapter summary.

1.1 BACKGROUND AND MOTIVATION FOR THE RESEARCH

Psychological career resources are the repertoire of competencies that promote and facilitate proactive career behaviour and which individuals use to manage their careers in the complex world of work (Coetzee, 2008, 2014a; Coetzee & Schreuder, 2018). An individual's psychological career resources include career values, career preferences, career enablers, career drivers and career harmonisers (Coetzee, 2008, 2014a; Coetzee & Schreuder, 2018; Coetzee & Bester, 2019). These career resources play an important role in developing an individual's employability through the acquisition of skills that promote adaptability (Coetzee, 2008, 2014a; Coetzee & Schreuder, 2018). Psychosocial career preoccupations are the career concerns that are at the forefront of an individual's mind and denote the general concerns pertaining to the career development activities that individuals undertake at a given point in time (Coetzee, 2014b). These psychosocial career concerns serve as an impetus for proactive career behaviour that allows the individual to adapt to their changing work environment in the process of trying to implement their evolving self-concept in their work (Coetzee & Engelbrecht, 2019; Coetzee & Schreuder, 2018). One's psychosocial career preoccupations include career establishment preoccupations, adaptation preoccupations and work/life adjustment preoccupations (Coetzee, 2014b). Psychological career resources and psychosocial career preoccupations play an integral part in an individual's career development (Coetzee, 2014a, b) and exploring the association between these constructs is becoming increasingly salient in the context of the changing world of work.

The business environment is turbulent and complex and is characterised by change and uncertainty (Brown, Gosling, & Sethi, 2017; Coetzee, Hall, 2004; Schwab, 2017a) and where such change and uncertainty are the result of a number of global forces (Brown et al., 2017). In the nascent Fourth Industrial Revolution the scale and accelerating pace of technological advancements is having a profound impact on the world of work (Eberhard et al., 2017; Manyika, et al., 2017). Artificial Intelligence (AI), automation and digitisation are leading to technological disruption that is affecting the way in which organisations operate (Bughin et al., 2018; Buguin et al., 2013; Schwab, 2017a; Shook & Knickrehm, 2018). Demographic shifts in the size and composition of the workforce that include increasing workforce diversity, greater participation of women and ageing populations are becoming the norm (Brown et al., 2017; Eberhard et al., 2017; Lyons, Ng, & Schweitzer, 2014; Tomlinson et al., 2018). Moreover, organisations are becoming increasingly aware of their responsibilities towards the environment in an era of heightened concerns about climate change and sustainability, as well as their responsibilities toward society, as people look increasingly to businesses to fill the leadership void left by government (Agarwal, Bersin & Lahiri, 2018). Furthermore, forces such as shifts in global economic power as large emerging economies play a greater role in world economics and politics (Brown et al., 2017; Schwab, 2017a), expanding consumer markets across the world; and rapid urbanisation in developing countries are changing the macroeconomic environment in which organisations function (Brown et al., 2017)

The complex and changing environment is demanding that organisations be agile and flexible in responding to change in order to survive and remain competitive (Agarwal et al., 2018). Therefore, organisations are increasingly revising their business models by means of restructuring, downsizing, increasing internal collaboration between business units and teams, and contracting staff out as opposed to employing them permanently (Agarwal et al., 2018; International Labour Office, 2014; Kolbjørnsrud, Amico, & Thomas, 2017; Maree, 2017; Schreuder & Coetzee, 2011; Tladinyane, Coetzee, & Masenge, 2013; Weill & Woerner, 2018).

The evolving nature of work (Barley, Bechky, & Milliken, 2017; Schwab, 2017a) has resulted in increased concerns among workers regarding their career development (Bhorat et al., 2016; Manyika et al., 2017; Nagy, Froidevaux, & Hirschi, 2018). Traditionally, the career assumed a linear progression of advancement with an employer, often lifetime employment with a single employer, where the employer rewards the employee's loyalty with job security and advancement (Nagy et al., 2018; Tomlinson et al., 2018). Career success in this regard was

based on objective measures such as promotion, salary increases and leadership position (Nagy et al., 2018; Spurk, Keller, & Hirschi, 2016). In the contemporary career, job security is not as prevalent as it once was and there are fewer opportunities for advancement, as organisations have adopted flatter structures to respond efficiently to change (Maree, 2017; Nagy et al., 2018).

In such an environment where objective measures of success are becoming less relevant, subjective career success is seen as important as individuals endeavour to construct their careers by imposing meaning on their various career experiences, such as occupational transitions, in the enduring guest to implement their evolving vocational self-concept, constantly improving the match between self and situation in the process of adapting to the changing world of work (Coetzee, 2015; Savickas, 2005, 2013, 2015; Savickas & Porfeli, 2012). In the contemporary career, where employers cannot guarantee job security, the psychological contract between employer and employee has changed such that the emphasis is on the employee to take charge of their career (Nagy et al., 2018, Tomlinson et al., 2018). With reduced job security in current times, the emphasis has shifted from employment to employability, where the individual takes greater responsibility for the development of competencies to effectively manage their career development and adapt to changes from within the organisation and environment (Arthur, 1994; Coetzee, 2008; Hall, 1996; Maree, 2017; Mishra & McDonald, 2017). This has placed increasing demands on workers to be competent but also resilient and adaptable (Arthur & Rousseau, 1996; Chong & Leong, 2017; Coetzee, 2008; Mishra & McDonald, 2017; Tomlinson et al., 2018). As a consequence, a shift from employment to employability has ensued, where workers focus on developing their knowledge, transferable skills and attributes to become more effective competency traders in the knowledge economy and the dynamic work environment (Coetzee, 2008; Maree, 2017). Employability, viewed as a psychosocial construct (Fugate, Kinicki & Ashforth, 2004), comprises psychosocial career meta-capacities that drive the career development of the individual (Coetzee, 2008).

The utilisation of one's psychosocial career meta-capacities, such as psychological career resources, and engaging in proactive career behaviour to develop and uphold employability, has acquired increased salience in the context of the turbulent business environment and the changing nature of careers (Blustein, 2017; Coetzee, 2017). The impending skills shift, which is being driven by technological advancements, will affect millions of people and drive employees to either transition jobs and careers or to learn new skills in their current jobs in the quest to retain their value in the workplace (Manyika et al., 2017). In addition, mid-career employees and older employees will be required to retrain at unprecedented levels (Manyika

et al., 2017). In order to learn new skills for adaptation (Khan & Forshaw, 2017; Schwab, 2018a), individuals will be required to utilise their psychological career resources and psychosocial career meta-capacities by engaging in proactive career behaviour. Furthermore, the growing number of millennials entering the workforce (Agarwal et al., 2018) and the rising number of older employees plying their trade as a result of people living and working longer will necessitate that organisations understand the myriad employee career concerns, as generational cohorts have different needs and motivations (Lyons et al., 2014), for the effective attraction and retention of talent in a competitive global marketplace (Vasudeva et al., 2017; Wójcik, 2018).

Moreover, it is argued that there is a pressing need to gain further insight into workers' psychological career resources and psychosocial career preoccupations in the South African context in view of the fact that the country's human capital is lagging in a number of areas when compared to global standards. According to the Global Competitiveness Report compiled by the World Economic Forum in 2018, South Africa's global competitiveness has declined from 47th place to 61st place out of the 137 countries surveyed (Schwab, 2017a). A contributing factor is that South Africa ranks poorly for labour market efficiency (93rd place), as some of its subfactors, namely, cooperation in labour-employer relations (137th place). flexibility of wage determination (132nd place), and hiring and firing practices (125th place) rank abysmally in relation to the rest of the world. According to KPMG (2019), South Africa ranks in 96th place out of 140 countries surveyed with regard to its readiness and capacity to deal with change, where labour market (117th place) and technology use (80th place) in particular rank unfavourably (KPMG, 2019). Of serious concern is the fact that South Africa ranks poorly in terms of its readiness and capacity to deal with change, considering that adapting to a changing environment is a prerequisite for managing one's career development effectively. According to the Schwab (2017a, b), South Africa has only tapped 58.09% of its people's human capital compared to the global average of 62% and the country's capacity to attract and retain top talent has declined over the last few of years. Furthermore, South Africa has one of the highest underemployment rates in the world and self-employment is low for a middle-income developing country (Schwab, 2018b; World Bank, 2018).

The aforementioned statistics point to an urgent requirement for individuals to develop or better harness their psychological career resources and to engage in proactive career management behaviour to place themselves, their organisation and South Africa in a better position to compete, deal with change and drive inclusive economic growth. It is therefore unsurprising that the underlying psychological career meta-capacities that constitute people's career behaviour and which stimulate a person's employability (Coetzee, 2008) have received

growing attention by researchers in the last decade or so. International and local studies have been conducted on varying populations, examining the relationship between workers' psychological constructs and employability. These constructs include self-esteem (Okay-Somerville & Scholarios, 2013), self-efficacy (Berntson, Näswall, & Sverke, 2008), self-concept (Kim, Kim, & Lee, 2015), career-oriented attitudes (Jain & Jain, 2013), career calling (Praskova, Creed, & Hood, 2015), career adaptability (Coetzee, Ferreira, & Potgieter, 2015; De Guzman & Choi, 2013), career anchors and emotional intelligence (Coetzee & Schreuder, 2013) and creativity (Chang, 2014) among other psychological constructs. The multitude of different psychological constructs studied suggest that self-empowering career behaviour comprises multiple psychological career meta-capacities or psychological career resources. Coetzee (2008, 2014a) coined the term "psychological career resources" and defines it as a specific array of psychological resources that comprises the career consciousness of the individual and which individuals utilise to act on their specific career concerns.

Career concerns or career preoccupations arise as the individual attempts to construct their careers through the implementation of the evolving self-concept in the dynamic work environment (Savickas, 2002, 2005). Such career preoccupations may focus on establishing oneself in a particular career (career establishment), adapting to the demands of the work environment and reconstructed career goals (career adaptation) and career concerns pertaining to work/life adjustment (Coetzee, 2014b). In order to alleviate a career preoccupation, individuals typically focus on implementing appropriate career behaviour that builds and develops the appropriate psychological career meta-capacities. For example, a young unemployed adult may be concerned about his career establishment and, as a consequence, may engage in appropriate job-seeking career behaviours which are manifestations of the underlying psychological career resources.

In view of the foregoing discussion, in this study the researcher sought to investigate the extent to which individuals' psychological career resources, as important psychological career metacapacities, explain workers' career preoccupations in the context of the dynamic working world.

Psychological career resources

According to Coetzee and Roythorne-Jacobs (2007), self-empowering career behaviour and general employability are informed by one's psychological career resources, which comprise a person's career-related orientations, values, attitudes, abilities and attributes (as cited in Coetzee, 2008). Coetzee (2008, 2014a) developed a model of psychological career resources

which comprises the constituents that form the 'career consciousness' of a person. This career consciousness includes the components of career values, career preferences, career drivers, career enablers and career harmonisers. Career values and career preferences guide the career decisions of individuals, as they comprise their unique views on how to navigate their careers. There are two career values (growth/development and authority/influence) and four career preferences (autonomy/independence, managerial, stability/expertise and creativity/variety). Careers drivers are made up of career purpose, career directedness and career venturing. Career enablers comprise practical/creative skills and self/other skills. Career harmonisers comprise the self-esteem, behavioural adaptability, emotional literacy and social connectivity of the individual. To facilitate an individual's optimum career development, the various components that make up the psychological career resources construct must be in balance (Coetzee, 2008; 2014a).

Research has found that psychological career resources function, as potential predictors of people's happiness, life satisfaction, job/career satisfaction and the perception that work is meaningful (Coetzee & Bergh, 2009), are related to their career anchors (Coetzee & Schreuder, 2009), their affective commitment to the organisation (Ferreira, Basson, & Coetzee, 2010), their coping resources (Coetzee & Esterhuizen, 2010), and their work and career commitment (Tladinyane, 2012), thus significantly contributing to explaining their retention-related dispositions (Tladinyane et al., 2013), and are a predictor of job embeddedness (Ferreira & Coetzee, 2014). Generally speaking, research conducted on psychological career resources has been correlational in nature, however there is also a paucity of studies that critique research on the construct.

Psychosocial career preoccupations

According to Coetzee (2014b), a psychosocial career preoccupation is the mental state of having career concerns at the forefront of one's mind at a particular point in time. Psychosocial career preoccupations are concerns about the vocational developmental tasks that individuals have to confront in the process of adaptation when continually endeavouring to attain the best fit between their evolving career self-concept and their work environment which is characterised by change and uncertainty (Savickas, 2005, 2013).

Career construction theory (Savickas, 2002, 2011, 2013) emphasises career concerns as being predominant in the career life story of the individual and help inform the vocational development tasks that are critical to achieve stability in each career life stage and essential to achieve career identity development. Career preoccupations encourage proactive

behaviour and attitudes that help construct an individual's career by improving the fit between the individual and the situation (Coetzee et al., 2015; Hamtiaux, Houssemand, & Vrignaud, 2013).

Coetzee (2014b) identifies three core psychosocial career preoccupations. Firstly, career establishment preoccupations involve concerns about fitting into a group, attaining career and economic stability and security, establishing opportunities for self-expression and personal growth and development, and advancing in one's career in the current organisation. Secondly, career adaptation preoccupations, which involve employability related concerns about adapting to changing contexts that might involve career changes and adjusting one's interests, talents and capabilities to fit with opportunities in the employment market. Thirdly, work–life adjustment preoccupations involve concerns about settling down, reducing one's workload and achieving greater harmony between one's work and personal life, and may also involve withdrawing from paid employment altogether (Coetzee, 2014b).

Psychosocial career preoccupations in relation to psychological career resources

The notion of psychosocial career preoccupations is a relatively new psychological construct and, hence, few correlational studies have been conducted on the construct thus far. At the time of writing, only a bivariate correlational study by Bester (2018) had been conducted, which investigated the association between psychosocial career preoccupations and psychological career resources. In terms of self-determination theory (Deci & Ryan, 2000), the degree to which an individual is motivated is determined by the manner in which the task or activity is internalised in the individual's self-concept. Accordingly, one's psychological career resources are a set of internalised meta-capacities. Likewise, one's psychosocial career preoccupations are internalised career concerns. An individual experiences psychological well-being in their careers (that is, with no or few career concerns) when the needs for autonomy, relatedness and competence have been met (psychosocial meta-capacities). Therefore, it is argued that the two variables are associated with one another.

The hypotheses for the empirical study are formulated as follows:

- H1 Individuals' psychological career resources are positively and significantly associated with their psychosocial career preoccupations.
- H2 Individuals' psychological career resources significantly and positively predict their psychosocial career preoccupations.

 H3 – Individuals from different gender, age, race and job-level groups will differ significantly regarding their psychological career resources and psychosocial career preoccupations.

Studies have shown that the degree to which psychosocial career preoccupations are experienced differs among the biographical variables of gender, age, race and job level. Women (Coetzee & Harry, 2015; Ferreira, 2012; Havenga, 2011) and black people (Coetzee & Stoltz, 2015) seem to experience higher levels of career adaptability than their counterparts, while individuals who fall into the 26-to-45-year age group appear to experience similar career concerns (Coetzee, 2015). For psychological career resources, studies have shown that African and Sotho-speaking individuals score higher on most psychological career resources than their white and English-speaking counterparts (Coetzee, 2008). Women have significantly higher mean scores than men on social connectivity and emotional literacy (Venter, 2013), but men score significantly higher on self-esteem, managerial and stability/expertise (Coetzee & Bergh, 2009). Significant age differences also exist in regard to psychological career resources (Coetzee, 2014a).

1.2 PROBLEM STATEMENT

The literature emphasises both psychological career resources and psychosocial career preoccupations as playing an important role in developing employability and stimulating the career development of employees. Yet, knowledge is still lacking on the association between the two constructs. In view of this gap in the literature it is clear that a deeper understanding is required of the association (if indeed one exists) between psychosocial career preoccupations and psychological career resources. Bester (2018) conducted a preliminary study and found correlations between the psychosocial career preoccupations and the career values facet of the construct of psychological career resources. The present study endeavours to explore the relationship between the constructs further by treating the psychological career resources as an explanatory construct of psychosocial career preoccupations in a different sample of South African working adults. The findings will provide valuable input that will inform the career development of employees in South Africa. For the purposes of this study, the following problems have therefore been identified:

• The literature does not offer sufficient information on the association between psychosocial career preoccupations and psychological career resources.

 The empirical association between psychosocial career preoccupations and psychological career resources needs to be determined in order to inform human resources strategy with regard to career development.

In view of the above problem statements, the following research questions were posed with reference to the literature review and the empirical study:

1.2.1 Research questions with regard to the literature review

- Research question 1: How does the literature conceptualise the constructs of psychological career resources and psychosocial career preoccupations?
- Research question 2: What are the implications of the theoretical link between the two constructs for career development practice?

1.2.2 Research questions with regard to the empirical study

- Research question 1: What is the nature of the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees?
- Research question 2: How do individuals from different gender, age, race and job-level groups differ with regard to psychological career resources and psychosocial career preoccupations?

On a theoretical level, the research will contribute to current career literature by providing insight into the association between psychological career resources (career drivers, career harmonisers, career values and career preferences) and psychosocial career preoccupations (career establishment preoccupations, career adaptation preoccupations and work–life adjustment preoccupations), as well as understanding these associations across the sociodemographic variables (gender, age, race and job level).

1.3 AIMS OF THE RESEARCH

In view of the research problems, the following research aims or objectives were formulated:

1.3.1 General aim

The primary aim of the study was to explore the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees. The secondary aim of the study was to incorporate the primary aim with specific reference to the way people from different gender, age, race, and job-level groups view their psychosocial career preoccupations and psychological career resources.

1.3.2 Specific aims

The following aims are formulated for the literature review and empirical study

1.3.2.1 Literature review

The specific aims of the theoretical study included the following:

- **Research aim 1:** To conceptualise psychosocial career preoccupations and psychological career resources from a theoretical perspective.
- Research aim 2: To conceptualise the implications of the theoretical link between the two constructs for career development practice.

1.3.2.2 Empirical study

The specific aims of the theoretical study included the following:

- Research aim 1: To explore the nature and magnitude of the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees. This research aim relates to research hypothesis H1 and research hypothesis H2.
- Research aim 2: To explore how significantly individuals from different gender, age, race, and job-level groups differ with regard to psychological career resources and psychosocial career preoccupations. This research aim relates to research hypothesis H3.

• **Research aim 3:** To draw conclusions and formulate recommendations for future research and career development practices.

1.4 PARADIGM PERSPECTIVE

Paradigms are comprised of systems of interrelated ontological, epistemological, axiological and methodological assumptions (Chilisa & Kawulich, 2012; Terre Blanche, Durrheim, & Painter, 2006). Hence, the paradigmatic stance guides the rationale for the research and commits the researcher to particular methods of data collection, observation and conclusions (Chilisa & Kawulich, 2012). This study was anchored in a humanistic research paradigm for the literature review and a positivist research paradigm for the empirical aspects of the study.

1.4.1 Literature review

According to Caton (2016), a humanistic psychological paradigm acknowledges the reality that humans are responsible for shaping their future through their capabilities, as opposed to relying on transcendental forces for direction. This is a positive stance that takes the view that humankind possesses the ability to resolve its own problems by embracing the scientific method and upholding the principles of ethics, reason and fairness. A humanistic paradigm holds that human beings have morals and value and worth, and have unique capacities which can be used to overcome life's challenges and to make improvements in the world around them (Caton, 2016).

The theories espoused in the literature review are in accordance with a humanistic paradigm. Psychological career resources reflect the unique human capacities and resources that people possess and which they can use to navigate the challenges experienced in their careers. Psychosocial career preoccupations reflect individuals' concerns regarding their unfulfilled career aspirations, goals and needs. These preoccupations serve to drive the individual toward becoming the best possible version of themselves in the process of self-actualisation (Coetzee, 2015; Savickas, 2013).

1.4.2 Empirical study

The empirical study comprised a cross-sectional quantitative study within the ambit of a positivist research paradigm. Cross-sectional research designs are especially relevant when

a researcher enters an unknown domain such as is the case in the present study (Spector, 2019). To the researcher's knowledge, this is the first study to explore psychological career resources as predictors of the construct of psychosocial career preoccupations.

According to Tuli (2011), the positivistic ontological assumption is that reality consists of observable elements that relate and interact with one another. It takes the empirical view that by observing the elements and how they interact with one another, one can acquire knowledge objectively (Tuli, 2011). The positivist view holds that there is only one reality which is relatively constant across time and setting, and which exists independently from the researcher (Chilisa & Kawulich, 2012). This reality is objective and knowable (Chilisa & Kawulich, 2012). The positivistic epistemological perspective holds that knowledge gained is the absolute truth for a given enquiry if, through the utilisation of the scientific method, the correct data collection instruments or tools were used (Chilisa & Kawulich, 2012). Knowledge is seen as being stable, objective and measurable and can be tested empirically (Chilisa & Kawulich, 2012). Research is quantitative in nature and data is collected using instruments such as questionnaires and surveys (Chilisa & Kawulich, 2012). The positivistic axiological assumption is one which assumes data to be true if that data is value-free and if the scientific methods used to gather that data were used to establish objectivity and neutrality during the research inquiry process (Chilisa & Kawulich, 2012). By ensuring scientific rigour, truth is uncovered and presented by empirical means and is measured against the criteria of validity, reliability, objectivity, precision and generalisability when empirical relationships are predicted, described and verified (Antwi & Hamza, 2015). The methodological assumptions of positivism dictate that the researcher be an observer and not form part of what is to be observed; human interests must not contaminate the observation; research advances through hypotheses and deductions; concepts are operationalised so that they can be measured; samples comprise large numbers of randomly selected participants; units of analysis should be reduced to the simplest terms; and statistical probability is used to make generalisations (Chilisa & Kawulich, 2012; Michell, 2003).

The empirical section of this study fully embraces the positivistic stance through the implementation of the research design and method. Data is quantitative in nature and was attained using questionnaires and analysed using accurate, fit-for-purpose and rigorous statistical techniques in order to pursue the research aims of the study. Hence, the association between the variables was empirically determined.

This study embraced positivistic and humanistic paradigms in contributing valuable knowledge about psychosocial career preoccupations and psychological career resources within the field

of career psychology, which forms part of the broader field of industrial and organisational psychology.

1.5 STATEMENT OF SIGNIFICANCE

On a theoretical and empirical level, the study sought to add to the current career research by exploring the association between psychological career resources and psychosocial career preoccupations. At the time of writing, only the preliminary study by Bester (2018) sought to directly test the association between these two variables notwithstanding the integral role that these variables play in the career development of the individual. Bester (2018) found bivariate correlations between the psychosocial career preoccupations and the career values facet of the construct of psychological career resources. The present study endeavoured to explore the relationship between the constructs further by treating the psychological career resources as an explanatory construct of psychosocial career preoccupations in a different sample of South African working adults. As such the study contributes new knowledge on theory and research pertaining to these two constructs.

On a practical level, if significant associations exist between these variables then one would have an understanding of which psychological career resources should be developed when particular career preoccupations are being experienced; and when one exhibits a lack of a particular psychological career resource then one would have an understanding of which psychosocial career preoccupation it is associated with and therefore what type of proactive career management behaviour or career development tasks are required to be undertaken by the individual for effective career management. Furthermore, understanding the association between one's psychological career resources and psychosocial career preoccupations will assist industrial psychologists and human resource practitioners to devise career management strategies, policies and interventions that seek to identify employees with particular career concerns or who are lacking certain psychological career resources and to assist these employees to build the necessary competencies to engage in the appropriate career development behaviour.

1.6 RESEARCH DESIGN

The research design provides a framework or structure for data collection and analysis in an investigation (Kelly, 2016; Salkind, 2014). According to Kelly (2016), a research design is comprised of three dimensions, namely, the scale of data, the use of time order and the use

of inter-group comparisons. The scale of data refers to whether the study is large scale or small scale, time order refers to whether data is collected over a period of time and comparisons refer to whether groups are compared to one another either explicitly or implicitly. According to Bhatacherjee (2012), the research design is a comprehensive plan of the empirical research that is to be carried out and entails a set of activities that is intended to answer the research questions or test the hypotheses put forward. The research design must include the processes of data collection, instrument development and sampling processes (Bhatacherjee, 2012). It should also include the rationale and justification for each decision the researcher has made regarding how the research will be carried out (Kumar, 2019).

1.6.1 Research approach

The present research was exploratory and descriptive in nature. Exploratory research is an approach that is used to investigate a topic that is relatively unknown (Babbie, 2013), and descriptive research is an approach that aims to explore relationships/associations between variables without endeavouring to prove causes for the observed patterns (Salkind, 2014). This research study was exploratory in its aim as it sought to explore associations between the variables of psychosocial career preoccupations and psychological career resources from a theoretical and empirical point of view. Only a preliminary correlational study by Bester (2018) has been conducted to date and therefore more research was needed. The present study was also descriptive in nature, as the exploration was specifically aimed at describing the association between psychosocial career preoccupations and psychological career resources and possible demographic differences, should such an association exist.

A cross-sectional survey design was used to achieve the research objective as the participants received an electronic link to the questionnaire via email or Linkedin. The advantages of this approach was an absence of interviewer bias, as well as saving money and time as the researcher did not have to be physically present to administer the measures since the measures are self-administered (Salkind, 2014; Wright, 2005). A cross-sectional survey design has proven to be an appropriate method to address the current lack of research pertaining to psychosocial career preoccupations and psychological career resources to date and was also deemed suitable to address the aim of this study. The disadvantages of this method are the possibility of non-response bias, as the individuals who completed the survey may have differed from those who did not consent to take part, which may have resulted in a sample that was non-representative of the population (Sedgwick, 2014). Furthermore, only association and not causation can be inferred from cross-sectional research (Sedgwick, 2014).

The research was not conducted in a single organisational setting but was carried out using the online social networking platform known as Linkedin. Linkedin is the largest professional networking site in the world with over 500 million members in over 200 countries and territories. Linkedin members are from a diverse, multigenerational, multicultural global population. Users on Linkedin can create and update their profiles with the purpose of profiling their work history and achievements, competencies, educational history, professional affiliations and the like. Users may also connect with other professionals so as to build a network of professional connections. These connections may be used as professional real-world connections by sharing information that assists users to develop and manage their careers effectively.

Linkedin is a relevant platform for examining the association between psychosocial career preoccupations and psychological career resources for a number of reasons. Firstly, Linkedin provides a convenient way to access a large sample of research participants from diverse backgrounds. Linkedin participants transcend a single employer. Hence, the responses are more likely to capture the varied psychological competencies and concerns of the South African working population more accurately than participants from a single employer. Specifically, the researcher was interested in (South African) working adults as they would have a more developed profile of career competencies than individuals who were still students and who had yet to forge their careers.

Secondly, research points to the fact that Linkedin is a valuable tool that can be used to improve users' employability and assist in their career development (Bridgstock, 2018). Thus, it made sense for the researcher to use Linkedin to measure the psychosocial career preoccupations and psychological career resources, as users engage with Linkedin in the process of building their competencies in the quest to improve their employability.

Thirdly, Linkedin has a proven track record of use for industrial and organisational psychology research purposes. Bester (2018) has demonstrated that Linkedin can be used successfully for research in the South African context. Both constructs being examined in this study were also part of the study conducted by Bester (2018), who used Linkedin to invite people to participate in his study.

1.6.2 Methods used to ensure validity and reliability

Threats to the internal validity, external validity and reliability of the research are important considerations that should be catered for in the research design (Salkind, 2014).

1.6.2.1 Validity

Validity is the extent to which the measuring instrument adequately reflects the real meaning of the concepts being investigated (Babbie, 2013; Foxcroft & Roodt, 2009). Internal and external validity are imperative for a good research design. External validity is concerned with how well the results of the study can be generalised to other populations and settings (Campbell & Stanley, 2015; Salkind, 2014). This study does not endeavour to generalise results to other population groups – only to the participants who were involved in the study. Internal validity, on the other hand, refers to the minimum requirements that make the experiment interpretable; ideally, the results of the study should not be attributable to a factor other than the manipulation of the independent variable (Campbell & Stanley, 2015). The researcher will adhere to guidelines which help to improve the validity of a research study (Terre Blanche et al., 2006; Salkind, 2014). These include clearly stating the purpose of the study and the theoretical paradigms underpinning the study, taking cognisance of the research technique and the context within which the research will take place.

In this study, internal validity was assured by

- using models and theories relevant to the research topic, aim and problem statement as guidelines
- selecting measuring instruments that are psychometrically sound, that is, both valid and reliable
- selecting measuring instruments that are applicable to the models and theories informing the study, and ensuring that they are administered in a standardised manner
- identifying plausible rivalry hypotheses and eliminating their impact
- administering measuring instruments directly after each other (as per the questionnaire booklet) to minimise the likelihood of events occurring between assessments that may affect the results, and
- generating data from the questionnaires electronically, thereby reducing the possibility of human error in the research procedure.

In this study, external validity was assured by administering the measuring instruments
to a large sample of individuals. This was done to help increase the generalisability of
results to the target population. However, it is also possible that the use of a
convenience sample could infer a selection bias and thus reduce the generalisability
of the results (Etikan, Musa & Alkassim, 2016).

1.6.2.2 Reliability

The reliability of a measure refers to the consistency with which it measures whatever it measures (Foxcroft & Roodt, 2009). Reliability refers to the extent to which the measuring instrument gives the same results when used repeatedly (Heale & Twycross, 2015). According to LoBiondo-Wood et al. (2014) and Shuttleworth (2009), a reliability coefficient of 0.70 is acceptable. In terms of the research process, reliability was assured as follows:

- Data collection only the selected sample was invited to participate in the study.
- Data management all data collected was stored electronically by the researcher.
 Access to this information is restricted to the researcher by the use of a password.
- Data analysis a statistical package (SPSS) was used to analyse the data to ensure reliability in analysis. Cronbach's alpha coefficients were used to establish the internal consistency of the measures used to collect data.

1.6.3 Research variables

There are two main types of variable, namely, dependent and independent variables (Salkind, 2014; Walliman, 2017). A dependent variable is type of variable that is measured to determine whether a change or manipulation to the independent variable had an effect (Salkind, 2014). In other words, the value of the dependent variable is the outcome or consequence of changes or manipulation to the independent variable (Salkind, 2014). Therefore, it is presumed that the independent variable influences the dependent variable (Salkind, 2014). In the present study the construct of psychological career resources was treated as the independent variable and the construct of psychosocial career preoccupations was treated as the dependent variable.

In this study, the sociodemographic variables (gender, age, race and job level) were also treated as independent variables and the dependent variables were psychosocial career preoccupations and psychological career resources. Owing to the cross-sectional nature of the research, causal relationships between the variables were not determined and only the

nature, direction and magnitude of the association between the way in which the biographical groups differ regarding the independent and dependent variables was examined.

1.6.4 Unit of analysis

The unit of analysis is the level at which the data will be analysed (Sekaran & Bougie, 2016). In this study, the unit of analysis is the individual. Data was collected from individuals and each individual response was treated as an individual data source. The biographical variables represented groups of individuals which were also units of analysis, as data from these groups was analysed to determine any inter-group variations in answering the research questions.

1.6.5 Ethical considerations

Practising sound ethical principles in research is of paramount importance (Salkind, 2014; Walliman, 2017). The following ethical considerations were taken into account by the researcher:

- Ethical clearance. Permission to conduct the research was obtained from the University of South Africa (Certificate Ref #:2018_CEMS/IOP_026 – attached as Appendix A).
- Ethical conduct. Form 223 of the Health Professions Act, namely "Rules of Conduct Pertaining Specifically to the Profession of Psychology" and the University of South Africa's Research Ethics Policy were consulted and the principles upheld during the research process.
- Researcher conduct. The researcher acted in an ethical, honest, responsible and transparent manner throughout the research process. The researcher sought not to harm, coerce and intimidate research participants and did not fabricate the research results in any way. The participants' rights and responsibilities were clearly explained to them and informed consent was obtained prior to their participation. Participants were informed that their participation in the study would be voluntary and that they could withdraw at any time. In addition, informed consent was obtained from the participants to use their anonymous group-based data for research purposes only. Participant anonymity, privacy and confidentiality was maintained throughout the research process.

• The statistician who assisted is experienced in his trade and was contracted via the University. Both the research supervisor and the statistician are experienced in working responsibly and ethically with participant data.

1.6.5 Delimitations

It is noted that not all individuals who were asked to participate in the study responded to the questionnaire, and some participants, especially older employees, may have experienced difficulty in completing the questionnaire as it was computer-based and not in the form of paper and pencil. The research employed a non-experimental design which meant that statements about causation cannot be made owing to the cross-sectional, exploratory and descriptive nature of the study. Hence, differences between the participants were interpreted as opposed to being established. Accordingly, the findings of this study cannot be generalised to occupational contexts.

1.7 RESEARCH METHOD

The first phase of the study focused on the literature review, which aimed to conceptualise the constructs of psychosocial career preoccupations and psychological career resources, analyse the existing literature on the constructs and examine the association between the two constructs. The meta-theoretical context within which the constructs exist was also analysed and explicated, which included an analysis of the 21st century world of work, protean and boundaryless careers and the macro-forces which affect career development in the contemporary workplace.

The second phase of the research focused on the empirical study. This study was conducted in the South African working environment in order to determine the association between the constructs. The research was carried out using LimeSurvey and the data was then statistically processed to produce the research findings. This part of the research concluded with the reporting of conclusions, limitations and recommendations by the researcher.

1.8 CHAPTER LAYOUT

The structure of the study in terms of chapter layout is illustrated in Figure 1.1. It outlines the following:

Chapter 1. Scientific orientation to the research

The aim of this chapter was to introduce the topic and discuss the variables to be investigated. This chapter discussed the design of the study and the methodology that was used in collecting and analysing the data.

• Chapter 2. Literature review

The aim of this chapter is to provide a conceptual analysis of the research variables, namely, psychological career resources and psychosocial career preoccupations. The practical implications of the association between psychological career resources and psychosocial career preoccupations are discussed.

Chapter 3. Article

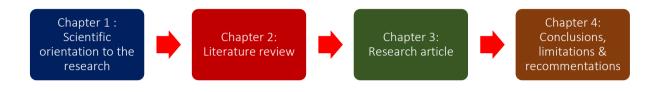
This chapter takes the form of a research article because the format of this document is a dissertation of limited scope. The chapter presents the methodology, data collection and analysis. The measuring instruments are disclosed and statistical information from the data analysis, pertinent to the study objective and hypotheses, is discussed.

• Chapter 4. Conclusions, limitations and recommendations

This is the final chapter, which contains an integrated discussion and conclusion regarding the results. Recommendations are also presented, the limitations experienced during the study are noted, and recommendations for future research for the field of Industrial and Organisational Psychology regarding career development practices are made.

Figure 1.1

Structure of the study (chapter layout)



1.9 CHAPTER SUMMARY

This chapter clarified the scientific orientation to the research. In addition, it described the background to and motivation for the research, the problem statement, the aims of the study, the paradigm perspective, the research design and methodology, and the chapter layout chosen for the study. The central hypothesis for this study is that there is a positive association between psychosocial career preoccupations and psychological career resources, and that individuals from different gender, age, race and job-level groups will differ significantly regarding these variables. The results of the study may assist career counsellors in supporting working adults in their career development. Chapter 2 discusses the meta-theoretical context of the variables, and an in-depth literature review of the constructs of psychosocial career preoccupations and psychological career resources is undertaken.

CHAPTER 2 LITERATURE REVIEW

The aim of this chapter is to conceptualise the constructs of psychological career resources and psychosocial career preoccupations. This will be achieved by exploring the metatheoretical context in which both constructs are situated, and then examining the constructs themselves in detail. The organisational context will be defined and then substantiated for the purposes of conducting this research. In terms of the meta-theoretical context, the contemporary career will first be introduced and thereafter the forces that are influencing careers in the 21st century will be examined before two important characteristics of the contemporary career are explicated, namely, the protean and the boundaryless careers. Lastly, the constructs of psychological career resources and psychosocial career preoccupations will be conceptualised, examined in terms of their theoretical models and then explored in terms of a possible association between the constructs so that meaningful conclusions can be drawn from the data obtained in this study.

2.1 THE META-THEORETICAL CONTEXT OF THE VARIABLES TO BE STUDIED

The various forces influencing organisations in the 21st century have transformed contemporary career management and development (Hirschi, 2018, Nagy et al., 2018). Forces such as globalisation and technological advancement have resulted in the world becoming a smaller place and have improved organisational efficiencies. (Luthans, 2015; Hirschi, 2018, Nagy et al., 2018). This has resulted in changes to the way organisations function and the manner in which business is conducted (Brewer, 2018, Cummings & Worley, 2014; Schreuder & Coetzee, 2011). Streamlining of processes, restructuring and automation, among other factors, have fundamentally changed the way in which careers are perceived and managed and have fundamentally changed the psychological contract between employer and employee (Cummings & Worley, 2014; Hirschi, 2018; Schreuder & Coetzee, 2011). Job security and stable lifetime employment with a single employer is no longer the norm (Hirschi, 2018, Nagy et al., 2018; Wiernik & Kostal, 2019). Contemporary career development calls for individuals to develop competencies or psychological career resources to help overcome their concerns or psychosocial career preoccupations in order to effectively navigate their careers through the turbulent 21st century business environment (Blokker et al., 2019; Brewer 2018; Coetzee, 2008, 2014a, b; Coetzee & Schreuder, 2018; Savickas & Porfeli, 2012). The metatheoretical context of the study forms the framework within which the variables of psychosocial career preoccupations and psychological career resources will be contextualised.

2.1.1 Careers in the 21st century world of work

The forces that are shaping the world at large are having a profound impact on organisations (Brown et al., 2017; Hirschi, 2018). Macro-level forces such as rapid technological innovation and globalisation, as well as those of a political and socioeconomic nature, have forced organisations to rethink the way they do business in order to remain competitive and survive in a business environment that is characterised by uncertainty, turbulence and change (Brown et al., 2017; Coetzee & Schreuder, 2018; Hall, 2004; Hirschi, 2018; Makridakis, 2017; Schwab, 2017a). As a consequence, contemporary organisations engage in cost-cutting measures and streamlining of processes which include the flattening of organisational structures, downsizing, outsourcing of work and focusing on the intake of temporary rather than permanent labour (Brewer, 2018; Cummings & Worley, 2014; Schreuder & Coetzee, 2011). These changes in the dynamics of the organisation have profoundly influenced career management in the contemporary world of work (Coetzee & Schreuder, 2018; Hirschi, 2018).

Career development in the 21st century is markedly different from that in the 20th century (Hirschi, 2018; Nagy et al., 2018; Schreuder & Coetzee, 2011). Contemporary careers are characterised by job instability, low or no loyalty to the organisation, a series of job changes (not necessarily upward career mobility) across organisational boundaries (Hirschi, 2018; Nagy et al., 2018; Schreuder & Coetzee, 2011). This differs greatly from the traditional career which was characterised by job stability, often with an employer for life, loyalty towards an organisation and upward career mobility with increased tenure and performance (Hirschi, 2018; Nagy et al., 2018; Schreuder & Coetzee, 2011). These differences in contemporary versus traditional careers have resulted in a redefinition of career success from an objective to a subjective view, with individuals striving to implement their self-concept in an attempt to have subjectively meaningful careers, as opposed to pursuing promotion, pay increases and status (Hall & Chandler, 2005; Hirschi, 2018; Nagy et al., 2018; Schreuder & Coetzee, 2011).

This new conceptualisation of career means that individuals are faced with the challenge of taking responsibility for their careers as they cannot solely rely on the organisation for their career development (Brewer, 2018; Schreuder & Coetzee, 2011). As the emphasis has shifted from employment to employability, individuals are faced with the challenge of building and maintaining their employability in a dynamic, uncertain and changing environment (Arthur, 1994; Coetzee, 2008; Hall, 1996; Maree, 2017; Mishra & McDonald, 2017). Individuals are forced to become adaptable and resilient so as to navigate changes in their career environment and deal with these changes effectively (Coetzee & Schreuder, 2018; Lyons,

Schweitzer & Ng, 2015a; Trevor-Roberts, Parker, & Sandberg, 2018). Individuals are also forced to become proactive career agents, in filling the void that organisations can no longer fill, by managing their own careers and shaping and reshaping their career future, as they interact and adapt to their environment in a manner that is congruent with their career identity (Coetzee & Schreuder, 2018; Hirschi, 2018; Savickas, 2013; Schreuder & Coetzee, 2011). Therefore, individuals are required to possess career-related competencies in order for them to build and uphold their employability in the quest to effectively self-manage their careers across the career lifespan (Blokker et al., 2019; Coetzee, 2014a). As a result, it is common for individuals to adopt a protean career, especially in a boundaryless career context.

2.1.2 The protean career and boundaryless career

Both the protean and the boundaryless career are important concepts in contemporary career management and development. The protean career is a career that is self-managed; that is, it is a set of beliefs and attitudes that drives the person to be a career agent, taking the initiative to direct their own careers in the quest to attain psychological success as opposed to being dependent on the organisation for their career sustenance (Abessolo, Hirschi, & Rossier, 2017; Briscoe & Hall, 2006; Hall, 2004; Wiernik & Kostal, 2019). The protean career entails continuously improving one's employability through varied experiences in work, education and training (Schreuder & Coetzee, 2011). Individuals who adopt a protean career use their values to guide their career and build employability by trading their knowledge and competencies in the pursuit of subjective career success (Schreuder & Coetzee, 2011). A protean career is seen as an important antidote to job insecurity in the postmodern world, which is characterised by numerous employment experiences on the part of the career agent (Hirschi, 2018; Schreuder & Coetzee, 2011). The boundaryless career refers to a career that is not bound to a particular employer and one that is characterised by physical and psychological mobility across organisations (Abessolo et al., 2017; Arthur, 1994; Colakoglu, 2011; Wiernik & Kostal, 2019). A boundaryless career may have mixed effects on an individual's career success (Guan et al., 2018).

2.1.3 Forces that are shaping the business environment and influencing careers

In this section, the main forces influencing society, organisations, individuals and career management will be explicated. These forces include rapid technological innovation and permeation, globalisation and sociodemographic changes.

2.1.3.1 Rapid technological innovation and permeation

The nascent Fourth Industrial Revolution is resulting in unprecedented levels of innovation and technological advances that are rapidly affecting world economies, businesses and individuals at a pace and scale that has never been witnessed before (Brewer, 2018; Eberhard et al., 2017; Schwab, 2017b, c). The pervading influence of digital technology through the internet of things, large social media platforms such as Facebook, Twitter, Instagram and Linkedin, the widespread use of mobile communications devices such as mobile phones and tablets, as well as online applications and websites have made communication and the transfer of information across the globe near instantaneous (Perrin, 2015; Schwab, 2017c; Siddigui & Singh, 2016; Störmer et al., 2014).

Rapid breakthroughs in artificial intelligence (AI) and robotics in almost all spheres of life are influencing the way in which humans live, work and interact with one another (Brougham & Haar, 2018; Hirschi, 2018; Makridakis, 2017; Oosthuizen, 2019). Rapid advances in technology such as cloud computing, the internet of things, virtual personal assistants, machine learning algorithms, facial recognition software, genetics, automation, self-driving and electric-powered vehicles, chatbots, 3D printing, biotechnology and nanotechnology are disrupting and changing the world at breakneck pace (Anagnoste, 2018; Brewer, 2018; Brougham & Haar, 2018; Daily et al., 2017; Hashem et al., 2015; Hirschi, 2018; Klare et al., 2015; Obermeyer & Emanuel, 2016; Quak, Nesterova, & Van Rooijen, 2016; Sathyabama, 2017; Schmidt & Cohen, 2013; Xu, David, & Kim, 2018).

Technology, which is digitising the workplace and accelerating the use of AI and automation, is completely transforming how businesses operate and the way in which work is performed (Brown et al., 2017; Hirschi, 2018; Oosthuizen, 2019; Valenduc & Vendramin, 2016). Organisational changes that are a result of technological influences include changes in systems and processes, organisational redesign and changes in leadership approach (Bolden & O'Regan, 2016; Bughin et al., 2018; Cummings & Worley, 2014; Manyika et al., 2015; Stanford, 2018; Weill & Woerner, 2018). AI, robotics and automation are resulting in new types of jobs where employees can take on higher value work and jobs where humans and AI work together, resulting in jobs with repetitive work becoming obsolete (Hirschi, 2018; Shook & Knickrehm, 2018). As AI becomes more integrated in organisations, jobs that require the use of skills such as sensory abilities, psychomotor abilities and physical abilities are decreasing,

as these jobs are more easily replaceable by AI, robotics and automation (Agarwal et al., 2018). According to Peters (2017), the loss of jobs directly as a result of technology, or technological unemployment, is a major concern in the 21st century. However, Agarwal et al. (2018) argues that jobs that require complex problem-solving, cognitive abilities and technical skills are expected to increase substantially as these skills remain more difficult to replace by technology.

The large-scale and accelerating influences of technology are resulting in a skills shift that is forcing individuals to learn new skills or be replaced by technology (Bughin et al., 2018; Hirschi, 2018; Oosthuizen, 2019). This, coupled with increased competition for high-skilled workers, is accelerating this shift further (Bughin et al., 2018). Individuals from all generational groups are forced to learn new skills, where mid-career employees may find this particularly challenging (Bughin et al., 2018).

2.1.3.2 Globalisation

Globalisation has resulted in the world becoming a smaller place, as people are more interconnected than ever before. This is largely due to advances in information technology and air travel which have drastically improved communication and interaction between individuals globally (Luthans, 2015; Pieterse, 2015). Globalisation has brought with it the increasing economic and political influence of large Asian economies such as China and India (International Monetary Fund, 2018; Shifrinson, 2020), as well as bringing about modernisation and accelerated technological advancement, with increasing numbers of people being influenced by a western value system (Chen & Machin, 2020; Luthans, 2015). This is evidenced by the near ubiquitous use of English as the global business language, and individuals having similar preferences for material possessions, lifestyle, entertainment and clothing (Luthans., 2015; Pieterse, 2015). Whilst globalisation has had a significant impact on economies and societies, it has profoundly affected organisations as well.

Many organisations have become multinational organisations and extend beyond the country of their establishment in the quest to tap into new market segments so as to drive revenue and increase profits margins (Dunning, 2014). As contemporary organisations are increasingly competing at an international level, they have to adapt to diverse contexts by being more responsive to their environment (Brown et al., 2017; Dunning, 2014). In order to remain competitive, organisations cut costs by streamlining processes, reducing the labour component and redesigning the organisational structure (Brewer, 2018; Cummings & Worley,

2014; Schreuder & Coetzee, 2011). As a consequence, contemporary organisations tend to have smaller, flatter, virtual and centralised organisational structures with more team-based, project-orientated work that is more equipped to respond swiftly to market conditions than the organisations of the 20th century (Barley et al., 2017; Dunning, 2014; Luthans, 2015; Schreuder & Coetzee, 2011). The changes in the way organisations are structured and operate, coupled with the increasing influence of technology, have resulted in job insecurity for workers (Savickas, 2019; Schreuder & Coetzee, 2011). Many workers have been replaced or are at risk of being replaced by technology, whilst on the flip-side, technology has augmented some jobs to help workers to perform their tasks more effectively and has also created new forms of employment and jobs (Manyika et al., 2017; Schwab, 2018a).

Globalisation has also contributed to the rise of the gig economy characterised by freelancers, independent contractors and casual earners (Barley et al., 2017; Hirschi, 2018; Manyika et al., 2016). These workers perform "jobless" work as they are not permanently employed by an organisation and typically perform short-term, independent work for organisations such as project-related work before moving on to the next organisation to provide their services or trade their competencies (Manyika et al., 2016; Savickas, 2019). Globalisation has also resulted in a war for talent, as organisations compete to have the best talent for acquiring or maintaining a competitive advantage (Harvey, 2014; Rabbi, Ahad, Kousar, & Ali, 2015). In the contemporary globalised economy, individual careers typically span many employers and lifetime employment with a single employer is not as common as it was in the traditional career (Arthur, 1994; Guan et al., 2018). In a globalised economy, individuals increasingly adopt the boundaryless career in which they perform work across organisational boundaries within a global context (Guan et al., 2018).

The aforementioned implications of globalisation necessitate that workers continuously improve their career competencies and skills to stay relevant in the labour market, a labour market that is increasingly susceptible to market volatility (Brown et al., 2017; Schwab, 2018a). In a globalised economy, the boundaryless career necessitates that individuals be proactive career agents who are able to navigate their careers across diverse working contexts. In order to do so, individuals need to possess the resilience to overcome career setbacks and the adaptability to deal with change (Coetzee & Schreuder, 2018; Savickas, 2013).

Contemporary career management and development call for individuals to possess competencies that would help them to operate in a global and multicultural work environment (Brown et al., 2017; Clark & Polesello, 2017; O'Byrne, 2018). This cultural capital is required in order to interact with individuals from varying cultural groups in the increasingly diverse workplace (Clark & Polesello, 2017; O'Byrne, 2018).

2.1.3.3 Sociodemographic changes

Whilst globalisation has generally brought people closer together, differences in the way individuals think and behave still exist and this is generally reflected in the different cultures that people subscribe to (Luthans, 2015). The contemporary workplace is more diverse than the 20th century workplace and is characterised by a greater representation of women, individuals from different races and ethnicities and generational cohorts from various generations enacting their respective careers (Luthans, 2015; Lyons, 2014; Mensi-Klarbach & Risberg, 2019; Roberson, 2019; Schreuder & Coetzee, 2011). The increasingly diverse workforce is a result of legislative pressures aimed at preventing discrimination on any arbitrary ground; changing demographics and a changing workforce composition; the rapidly growing prevalence of international businesses as a result of globalisation; competitive pressures; and the growing recognition that diversity is a source of competitive advantage (Mensi-Klarbach & Risberg, 2019; Roberson, 2019; Luthans, 2015).

Sociodemographic changes affecting careers in the 21st century have been profound (Luthans, 2015; Mensi-Klarbach & Risberg, 2019; Roberson, 2019; Schreuder & Coetzee, 2011). Although gender inequality still exists, the modern labour market is characterised by many more women at all occupational levels (Luthans, 2015; Mensi-Klarbach & Risberg, 2019; Roberson, 2019; Schreuder & Coetzee, 2011). Women are increasingly attaining managerial and leadership roles in organisations and are entering and maintaining careers in traditionally male-dominated professions. Individuals are living longer as a result of advances in medicine and, hence, are working longer and past the traditional retirement age.

The five generational cohorts, namely, the traditionalists (born prior to 1945), Baby Boomers (born between 1955 and 1964), Generation X (1965 to 1979), Generation Y (born in 1980 or later) are increasingly finding themselves together in the same workplace (Arrington & Dwyer, 2018). These generational cohorts generally subscribe to differing career values and differ in terms of their career experiences, career expectations and career outcomes (Coetzee, Ferreira, & Shunmugum, 2017; Hess & Jepsen, 2009; Lyons & Kuron, 2014; Lyons, Schweitzer, & Ng, 2015b; Mencl & Lester, 2014). There has also been growth in the diversity of personal relationships of career agents. Whilst the traditional heterosexual working couple is still prevalent in modern society, single-parent couples, unmarried couples and homosexual couples are also prevalent (Ghosh, 2019; Schreuder & Coetzee, 2011).

Furthermore, individuals have become increasingly conscious about issues relating to sustainability and ethics, and they often look to organisations to drive these principles and related actions, especially when there is a void that has been left by government (Agarwal et al., 2018; Brown et al., 2017). With such diversity in the contemporary workplace, it is evident that career competencies, career values, needs, aspirations and career concerns differ from individual to individual.

2.1.4 Section synthesis

The preceding section critically discussed careers in the contemporary world of work. It was highlighted that changes in the way businesses function and the way in which work is performed has resulted in increased job insecurity among workers. In addition, as organisations have become flatter and more technologically advanced in a turbulent, competitive and globalised workplace, the responsibility of career management in the 21st century has shifted from the organisation to the individual.

The impact of macro-level forces, including technological innovation, globalisation and sociodemographic shifts, was also examined in terms of the effect it has on contemporary career management. The Fourth Industrial Revolution, AI, increased competition, the war for talent, changing value systems and increased workplace diversity have contributed to greater career concerns about the way individuals manage their careers, and has warranted a need for building capacity in the contemporary career agent's psychological career resources to foster greater career adaptability for effective career management. The protean career, which emphasises the career agent taking responsibility for driving his or her career development, and the boundaryless career which emphasises increased mobility and not being bound to a single employer, was explicated as being a key characteristic of contemporary career management.

Contemporary career management necessitates that individuals possess the psychological career resources (competencies) to navigate the changes in their environment brought about by the forces that influence their careers. It is likely that if individuals do not possess adequate competencies then they will be less able to adapt to their environment and less likely to forge a career that is congruent with the self. If competencies are lacking it may initiate psychosocial career preoccupations that serve as impetus for individuals to engage in career developmental tasks of adaptability. In the following sections, psychological career resources and psychosocial career preoccupations are explicated in detail.

2.2 PSYCHOLOGICAL CAREER RESOURCES

In this section, psychological career resources are critically examined.

2.2.1 Conceptualisation of psychological career resources

Psychosocial career meta-capacities are the wide array of psychological attributes that individuals possess to varying extents and which they draw on in order to attain optimal person–environment harmonics in their career, a dynamic which plays out in the context of a business environment that is characterised by turbulence, change and uncertainty (Coetzee, 2008, 2014a; Coetzee et al., 2017; Savickas & Porfeli, 2012). These psychosocial career meta-capacities influence individuals to engage in proactive career behaviour, adapt to changing career circumstances and build employability, which are necessary behaviours in the context of the 21st century world of work (Blokker et al., 2019; Coetzee et al., 2017; Coetzee & Engelbrecht, 2019; Coetzee, Oosthuizen, & Stoltz, 2016; Savickas & Porfeli, 2012). Coetzee (2008, 2014a) developed a framework of psychological career resources. These are specific psychosocial career meta-capacities that comprise individuals' repertoire of cognitive, social, emotional and motivational resources.

2.2.2 Theoretical model of psychological career resources

The psychological career resources model developed by Coetzee (2008, 2014a) provides a useful framework for understanding the various psychosocial career attributes that help individuals to build employability and engage in proactive career self-management behaviour (Coetzee, 2008, 2014a; Coetzee et al., 2017). The psychological career resources model comprises career values, career preferences, career drivers, career enablers and career harmoniser competencies (Figure 2.1).

Figure 2.1

Psychological career resources (Coetzee, 2008)



2.2.2.1 Career values and career preferences

Career values and career preferences define what a career means to individuals and act as a compass by guiding career choices and decision making throughout their life course (Coetzee, 2008, Coetzee & Esterhuizen, 2010).

Career values motivate individuals to pursue specific career preferences (Coetzee & Esterhuizen, 2010). Coetzee (2008, 2014a) denotes two career values, namely, growth or development and authority or influence. The growth or development career value refers to individuals' desire to build their knowledge and skills and their willingness to engage in career growth and learning opportunities. Authority or influence refers to the extent to which individuals like to have authority and influence over others and the degree of freedom they possess to make decisions without being constrained by boundaries and rules. Individuals that possess holistic career values experience higher life satisfaction which in turn increases their work engagement (Elder, Westring & Friedman, 2020).

Individuals' career preferences refer to the career-related actions that guide career moves and career growth (Coetzee et al., 2017, Coetzee & Esterhuizen, 2010). Coetzee (2008, 2014a) denote four types of career preference within the psychological career resources model, namely, creativity/variety, stability/expertise, managerial, and autonomy/independence. Creativity or variety reflects individuals' career preference for being creative and using a wide variety of skills and knowledge in performing new or unexpected things. Stability or expertise reflects individuals' career preference for job security and developing expertise within a chosen field. The managerial career preference refers to individuals' desire to have authority, be a manager and have subordinates that report to them. The autonomy or independence career preference refers to individuals' freedom to make decisions and self-manage their schedule and the flexibility to choose tasks and get them done whenever they choose (Coetzee, 2008, 2014a).

2.2.2.2 Career drivers

Career drivers include career purpose, career directedness and career venturing (Coetzee, 2008, 2014a). Career drivers serve as the motivational drive that spurs individuals to experiment with various career experiences and opportunities based on a self-assessment of their abilities, possible selves and future work roles (Coetzee et al., 2017).

Career purpose refers to the sense of calling that individuals possess towards their career (Coetzee, 2008, 2014a). Research has shown that career calling relates to greater career decision self-efficacy (Douglass & Duffy, 2015), is a significant predictor of personal growth and life meaning (Duffy et al., 2014), and is positively related to one's career adaptability, work engagement and career satisfaction (Xie et al., 2016). Furthermore, an individual who views their career as a calling is more likely to experience job satisfaction and organisational commitment (Duffy, Dik, & Steger, 2011). However, research has shown that having a calling is only a benefit if the pursuit of the calling has been realised by the individual, in which case the individual is able reap the benefits of psychological growth, wellbeing and optimal functioning by having their basic psychological needs met (Gazica & Spector, 2015), and that calling negatively relates to personal flexibility as a dimension of employability, meaning individuals who experience career as a calling are more rigid in their career goals which may limit opportunities to build employability (Lysova et al., 2018).

Career directedness refers to the confidence individuals have in fulfilling their career goals, whether these goals are clear, and to what extent support or resources can be attained to achieve the career goal (Coetzee, 2008, 2014a).

Career venturing refers to the individual's capacity to explore and experiment with new career experiences and opportunities (Coetzee, 2008, 2014a). Research has demonstrated that possessing a protean career personality and attitudes is related to the individual's sense of trying out new career ventures in the form of international mobility assignments and entrepreneurial intentions (Baluku et al., 2018), and that having a boundaryless mindset is positively correlated to career satisfaction (Park, 2018).

2.2.2.3 Career enablers

Career enablers are the portable skills that individuals utilise to attain career success (Coetzee et al., 2017; Ferreira & Coetzee, 2010). Career enablers comprise the individual's practical or creative skills and self or other skills (Coetzee, 2008, 2014a). Practical and creative skills focus on the application of one's intelligence (such as the use of problem-solving skills and creating practical plans from ideas) and creativity in the enablement of one's career (Coetzee, 2008; Coetzee & Esterhuizen, 2010; Coetzee et al, 2017).

Practical intelligence denotes the application of cognitive intelligence. According to Amdurer et al. (2014), whilst there is an aspect of cognitive intelligence that is related to positive career outcomes, on the whole, career satisfaction and career success are not affected by higher levels of cognitive intelligence. In fact, cognitive intelligence is negatively related to life satisfaction as people with higher cognitive abilities may be less liked by others at work owing to their sceptical views and lower sociability (Amdurer et al., 2014).

In the 21st century, creativity as a competency is seen as an important psychological attribute required for adapting to or overcoming change. Employee creativity has been shown to be positively related to daily planning behaviour, long-term planning, and perceived control of time and tenacity (Darini, Pazhouhesh, & Moushiri, 2011). At an organisational level, research has supported the notion that individual creativity has positive effects on company innovation (Çekmecelioğlu & Özbağ, 2016) and is seen as an important stimulator of company growth (Tomczak-Horyń & Knosala, 2017).

Self or other skills refer to the individual's self-management and interpersonal skills which include self-discipline and getting the most out of oneself (Coetzee, 2008, 2014a). Teamwork

as an aspect of interpersonal skills is a positive predictor of life satisfaction (Amdurer et al., 2014). Research has also shown that possessing multiple intelligences, in the form of emotional, cognitive and social intelligence, is a necessity for becoming an effective manager in an era where careers are developed and managed within an increasingly social context (Aslam et al., 2016).

2.2.2.4 Career harmonisers

Career harmonisers are those psychological attributes that help to promote resilience and flexibility as individuals navigate career-related challenges (Coetzee, 2008, 2014a). Career harmonisers also act as controls so that individuals do not burn themselves out in the quest to attain career goals or in the process of experimenting with career experiences and opportunities (Coetzee, 2008, 2014a). Career harmonisers comprise four psychological attributes, namely, self-esteem, behavioural adaptability, emotional literacy and social connectivity.

Self-esteem refers to the enduring evaluations that individuals make of themselves in relation to others (Coetzee, 2008, Coetzee & Schreuder, 2018). Previous research has highlighted the importance of self-esteem in relation to important constructs in career management. According to Ismail, Ferreira, and Coetzee (2016), when self-esteem is high in emerging adults the relationship between self-perceived graduateness skills and career adaptability is significantly stronger. Furthermore, positive self-evaluations of oneself are a positive predictor of career adaptability and future work self (Cai et al., 2015). Core self-evaluations is also an antecedent of protean career orientation (Rodrigues, Butler & Guest, 2019). Low self-esteem can lead to workaholism and increased work stress (Aziz, Zamary, & Wuensch, 2018). According to Ganzach and Pazy (2014), when general mental ability is controlled for, one's core self-evaluations negatively affect the growth of objective career success and does not affect the growth of subjective career success. However, it should be noted that participant data used in that study was over 15 years old which may have had a bearing on the results.

Behavioural adaptability refers to the individual's capacity to engage in proactive career self-management by dealing courageously with misfortunes and failure and by adapting to the dynamic forces that influence the individual's career (Coetzee, 2008, Coetzee & Schreuder, 2018). Individuals with proactive personalities demonstrate higher levels of career adaptability as they are able to influence their environment in a manner that seeks to improve their career circumstances (Tolentino et al, 2014).

Emotional literacy refers to the individual's ability to identify, manage, accept and express their emotions (Coetzee, 2008, 2014a). Individuals' abilities to manage their emotions are significantly positively related to their career adaptability (Coetzee & Harry, 2014) and creativity (Silva & Coelho, 2019). According to Amdurer et al. (2014), emotional intelligence, the way in which individuals manage theirs and others' emotions, is positively correlated to career satisfaction and career success, where adaptability as a facet of emotional competence is positively correlated to life satisfaction, career satisfaction and career success.

Social connectivity is the degree to which individuals are able to connect with others (Coetzee, 2008, 2014a). Social connectivity is akin to an individual's social capital, which refers to the value-adding interpersonal relationships that individuals form which provide resources that help them to manage their careers effectively (Bizzi, 2015). Social capital comprising social networks and professional linkages is a predictor of promotion and subjective career success (Ganiron, 2013). Social capital gained by engaging in professional social networking sites such as Linkedin has a significant positive relationship with professional success in one's career (Nikitkov & Sainty, 2014). Social capital is positively related to organisational creativity and organisational efficiency (Sözbilir, 2018). Social capital is an antecedent of both protean and boundaryless career (Rodrigues et al., 2019). External support-seeking career behaviour, using one's career and non-career social networks, is positively related to career satisfaction (Park, 2018). Cultural intelligence, that is, the ability to effectively interact with individuals from different cultures, is positively related to job performance and is seen as an essential competency in the boundaryless world of work (Jyoti & Kour, 2015).

2.2.3 Previous research on psychological career resources

Research has shown that psychological career resources are positively related to a number of positive career outcomes. According to Coetzee et al. (2017), the psychological career resources of behavioural adaptability, self-esteem, social connectivity, career purpose, career directedness and self/other skills are all related to the career adaptability dimensions of career concern, career control, career curiosity and career confidence, implying that these psychological career resources are necessary for proactive career self-management. Dimensions of psychological career resources, such as self-esteem, behavioural adaptability and emotional literacy, have been found to contribute significantly to individuals coping resources (Coetzee & Esterhuizen, 2010). Self/other skills and career directedness was found to be a significant contributor of individuals' sense of job embeddedness (Ferreira & Coetzee, 2013), while career harmonisers were found to positively influence work engagement (Coetzee et al. 2016). Research has found that psychological career resources are potential

predictors of people's happiness, life satisfaction, job/career satisfaction and perceptions that work is meaningful (Coetzee & Bergh, 2009), are related to people's affective commitment to the organisation (Ferreira, Basson & Coetzee, 2010) and work and career commitment (Tladinyane, 2012), as well as contributing significantly to explaining people's retention-related dispositions (Tladinyane et al., 2013). Furthermore, psychological career resources have been found to be related to individuals' career anchors (Coetzee & Schreuder, 2009). Coetzee and Bester (2019) found that career preferences, career drivers, career harmonisers are dynamic psychosocial career mechanisms that regulate the link between harmonious work passion and career satisfaction.

In a study undertaken by Coetzee (2008) and findings in relation to demographic variables suggested the following:

2.2.3.1 Age

Coetzee (2008) observed significant differences between the different age groups in her study of psychological career resources. Individuals in late-early adulthood (31–40 years) obtained significantly lower mean scores than individuals in the early adulthood life stage (25 years and younger) on the authority/influence career value; obtained significantly higher mean scores on growth/development and self/other skills than the 25 years and younger age group; and obtained significantly higher mean scores than individuals in the late life stage (56 years and older) on self-esteem and stability/expertise career preference. Individuals in the mid-life stage (41–55 years) obtained significantly higher mean scores than the 25 years and younger age group on self/other skills and the growth/development career value. It was also found that individuals between the ages of 26 and 30 years (middle early adulthood) attained significantly lower mean scores than individuals in the 25 years and younger age group on the authority/influence career value (Coetzee, 2008).

2.2.3.2 Race

Coetzee (2008) found significant differences between race/language and all psychological career resources (bar emotional literacy). According to Coetzee (2008), Africans (especially the Sotho-speaking group) obtained higher mean scores than other race/language groups for all psychological career resource variables, whilst whites (especially the English-speaking group) obtained the lowest mean scores when compared to other race groups. English-speaking whites scored significantly lower than Africans on all psychological career resources,

with Sotho-speaking Africans scoring significantly higher on all psychological resources (except autonomy/ influence career value) and Nguni-speaking Africans scoring significantly higher on all psychological career resources (except the variety/creativity career preference) than their English-speaking white counterparts. On the other hand, white Afrikaans-speaking individuals scored significantly lower than Africans on almost all psychological career resources (except for variety/creativity and autonomy/influence). However, white Afrikaans-speaking individuals did not score significantly lower than the Nguni-speaking African group on practical/creative skills and freedom/autonomy. Coetzee (2008) suggests that these findings may be attributed to the impact of employment equity legislation in post-apartheid South Africa where black people have more opportunities for career advancement and white people are uncertain about their career prospects and their future.

2.2.3.3 Gender

According to Coetzee (2008), significant differences were observed between males and females in terms of their psychological career resources. Males and females differed significantly with regard to their career preferences, career values, practical/creative skills, self-esteem, emotional literacy and social connectivity (Coetzee, 2008). Males obtained higher means scores than females for most psychosocial career preoccupations, where females rated themselves higher than males in self/other skills, emotional literacy and social connectivity (Coetzee, 2008).

However, Symington (2012) found no significant differences between males and females regarding their psychological career resources. Venter (2013) also found no significant differences between males and females regarding their psychological career resources except for the independence/autonomy career preference, where males scored significantly higher than females. It should be noted, however, that in both studies the majority of the sample was female (77% and 73% respectively), so the results may not provide a thorough examination of potential gender differences on psychological career resources variables.

2.2.3.4 Job level

In a study conducted by Coetzee and Bergh (2009), it was found that participants demonstrated low levels of the managerial career preference. This is an interesting finding considering that the sample consisted mainly of supervisory level staff and staff who occupied posts at middle and senior management levels. In the work of Bester (2018), a significant

negative bivariate correlation was observed for the career drivers subscale in terms of job level.

2.2.4 Section synthesis

In this section, the various components of the psychological career resources model were explicated in detail and the research studies discussed revealed the importance of these specific psychological career resources for contemporary career management. The construct of psychological career resources was contextualised and conceptualised as being a set of psychosocial career meta-capacities that is needed for an individual to engage in proactive career behaviour. Although the motivation to engage in proactive career behaviour may stem from an individual's psychosocial career preoccupations, there is a general paucity of research which examines how the construct of psychological career resources is associated with the construct of psychosocial career preoccupations in the South African context. Furthermore, this research has shown that the results of some studies differ in regard to the association between the biographical variables and the construct of psychological career resources. Specifically, the association of the biographic variable of gender with psychological career resources differs in some studies. As a consequence, results of various studies have not indicated a clear, definitive picture of the association between some of the biographical variables and the construct in the South African context. Hence, further research is required in this regard.

2.3 PSYCHOSOCIAL CAREER PREOCCUPATIONS

In this section, psychological career resources will be critically examined.

2.3.1 Conceptualisation of psychosocial career preoccupations

Contemporary career management necessitates that individuals forge and manage their career in an increasingly uncertain, turbulent and changing business environment (Hirschi, 2018). The inner needs that motivate the individual (Deci & Ryan, 2000) to navigate the challenges stemming from the environment result in career concerns. These career concerns occur throughout the career life story of the individual and are related to specific psychosocial tasks that individuals must undertake in order to adapt to changing career contexts in the process of their career identity development throughout the career life cycle (Savickas, 2013).

Coetzee (2014b) defines psychosocial career preoccupations as the mental state of having career-related concerns at the forefront of an individual's mind at a specific moment in time. According to Coetzee (2017), psychosocial career preoccupations comprise an individual's psychological and social concerns at a specific point in time. The psychological concerns pertain to an individual's self-concept or identity whilst the social concerns relate to the career–social circumstances/roles interface (Coetzee, 2017). An individual's psychosocial career concerns reflect their cognitive evaluation of how the organisation and they themselves have responded to and met their evolving career development needs (Potgieter, Coetzee, & Ferreira, 2018).

2.3.2 Theoretical model of psychosocial career preoccupations

Human beings develop over the course of their lives, that is, the life span (Erickson, 1963). Freud, in his five stages of psychosexual development, argued that individuals' personalities are forged during childhood and that the forces that drive individual development are sexual and aggressive in nature (Freud & Bonaparte, 1954). Buehler (1933) pioneered the idea that individuals develop throughout the lifespan via a set of structured life stages, namely, growth, exploration, establishment, maintenance and decline (as cited in Munley, 1977). Individuals encounter specific challenges and concerns at each of these stages. Erikson (1963) expanded on Freud's work by explicating that individuals develop over their entire life span. He led the way in advancing the notion that development is not psychosexual in nature, but occurs within a psychosocial context within which individuals are constantly trying to adapt to society as they progress through the eight life stages of psychosocial development (Erikson, 1963). Taking the research together, Buehler (1933) and Erikson (1963) provide an important backdrop for understanding that individuals develop over their entire life span, that such development plays out as individuals interact with their environment and that at various stages in life there are tasks and challenges that individuals must overcome in order to develop successfully. These challenges may give rise to predominant career concerns or preoccupations at various transitional points in individuals' lives.

According to Coetzee (2015), work provides a context for human development. Careers develop within a social context (Savickas, 2002). As individuals develop over the life course, they also strive to develop in their careers. As individuals strive to implement their self-concept in their career, they will go through a series of career development stages, with developmental tasks and challenges experienced as career concerns or preoccupations at each stage that must be overcome in order for their careers to develop effectively (Coetzee, 2015; Savickas, 2013; Super, 1957, 1990). Building on Buhler's (1933) life stages, the five stages of career

development outlined by Super (1957) are growth, exploration, establishment, maintenance and disengagement.

The growth stage typically occurs between the ages of four and 13 years. At this stage the individual develops a basic understanding of work through chores and responsibilities. This stage focuses on the building of relationships with family, teachers and friends, and focuses on the establishment of a self-concept, which develops as the individual interacts with other individuals (especially adults such as parents and teachers) (Super, 1957, 1990).

The exploration stage typically occurs between the ages of 14 and 24 years. Core career concerns at this stage include making a school-to-work transition, exploring and testing career possibilities, finding employment and building work relationships. Individuals' are concerned with the crystallisation and implementation of their self-concept at work (Super, 1957, 1990).

The establishment stage typically occurs between ages of 25 and 44 years. At this stage, individuals are concerned with settling down in a chosen field of work, improving their employability through skills expansion in education and through various work experiences, understanding the fundamental requirements of the job, having a sense of job stability and career advancement in their chosen career. During this stage, individuals may experience the quarter-life crisis (Super, 1957, 1990).

The maintenance stage typically occurs between ages of 45 and 65 years. Individuals are concerned with maintaining levels of success in the face of increasing family demands, rapid technological change and competition. The individual focuses on maintaining their employability by updating skills and knowledge in order to uphold their reputation and maintain their job (Super, 1957, 1990).

The disengagement stage typically occurs from the age of 65 and older. This stage is characterised by individuals disengaging or slowing down productivity in work-related activities and their career, planning for retirement and retirement living, and concerns related to losing their job as a result of poor health. Individuals typically reappraise their self-concept as they review their lives and careers. During this stage, individuals tend to become concerned about giving back to society through community work and volunteering, as well as spending more time with family (Super, 1957, 1990).

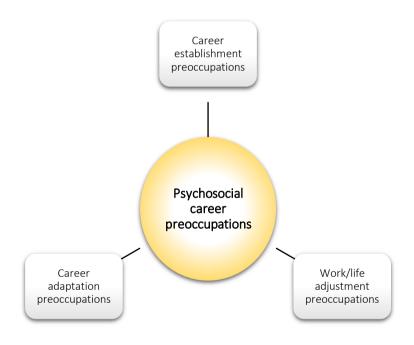
Super (1957, 1990) viewed the accomplishment of vocational development tasks within each stage as being pivotal in assisting the individual to form, reshape and implement the vocational

self-concept. Drawing from Super's theory of life career stage vocational development, Savickas (2013) posited the career stages as orientation, exploration, stabilisation, management and disengagement. The orientation, stabilisation and management stages refer to the growth, establishment and maintenance stages in Super's career stages framework.

Coetzee (2014b) expanded career development research on psychosocial career preoccupations by building on previous research, including life-stage theory (Super, 1957, 1990) and theory on developmental tasks of adaptability (Savickas, 2005, 2013), by postulating three broad psychosocial preoccupations in her model of psychosocial career preoccupations (Figure 2.2). Coetzee (2015) suggests that psychosocial career preoccupations are non-age and non-career stage related.

Figure 2.2.

Psychosocial career preoccupations (Coetzee, 2014b)



Career establishment preoccupations include concerns relating to fitting in to the work environment, achieving economic stability and security through paid employment, achieving career stability and security, advancing in the chosen career, and concerns related to becoming employable by establishing and pursuing opportunities for learning, growth and development (Coetzee, 2015, 2016a, 2017). Career adaptation preoccupations are concerns related to establishing and maintaining the optimal person—environment fit in one's career by adapting to the constantly changing environment through the adjustment of one's interests,

talents, skills and capabilities (Coetzee, 2015, 2016a, 2017). Work/life adjustment preoccupations include achieving a greater work–life balance, settling down, decreasing one's workload and withdrawing from paid employment (Coetzee, 2015, 2016a, 2017).

2.3.3 Previous research on psychosocial career preoccupations

As psychosocial career preoccupation is a relatively new construct, it remains underresearched and, hence, previous research is limited (Coetzee, 2015, 2016b, 2017). According to Coetzee (2015), significant positive associations have been found to exist between career establishment, work/life adjustment preoccupations and work-related commitment. Career establishment and career adaptation preoccupations significantly contribute to explaining an individual's work-related commitment (Coetzee, 2015).

Coetzee (2017) found significant associations between the three psychosocial career preoccupations and employability capacities of individuals. All three psychosocial career preoccupations were found to be significantly associated with problem-solving/decision-making skills, enterprising skills, interactive skills, presenting/applying information skills, ethically responsible behaviour, goal-directed behaviour and continuous learning.

Coetzee (2016a) found that the three psychosocial career preoccupations significantly predicted overall technological change receptivity, as psychosocial career preoccupations were found to be significantly associated with ingenuity and openness to change. Work/life adjustment preoccupations, followed by career establishment preoccupations, contributed the most in explaining ingenuity and openness to change variables.

The concept of psychosocial career preoccupations is one of the strongest psychological attributes in predicting higher levels of perceived organisational support and career satisfaction (Takawira, 2018).

According to Potgieter et al. (2018), career concerns moderate the indirect effect between job embeddedness and satisfaction with retention practices via workplace friendship. The research indicates that the link between an individual's job embeddedness and satisfaction with retention practices via perceptions of workplace friendship is likely to be significant and positive if career concerns are low.

Bester (2018) found positive associations between the three psychosocial career preoccupations postulated by Coetzee (2015, 2017) and the career values facet of the psychological career resources construct.

2.3.3.1 Age

Coetzee (2015) observed that no significant differences exist between the three psychosocial career preoccupations of the career stage-related age groups that were posited by Savickas (2005, 2013), Sharf (2010) and Super (1957,1990). This affirmed Coetzee's (2014b) view that psychosocial career preoccupations are not age dependent because career concerns are not limited to a specific age group or chronological age.

Takawira (2018) observed significant bi-variate relationships between the biographical variable of age and the overall psychosocial career preoccupations scale and subscales. It was also found that age significantly predicted the construct of psychosocial career preoccupations. These findings supported research conducted by Bester (2018), where age was found to be significantly related to preoccupations of career establishment, career adaptability and work/life adjustment, as well as the overall construct of psychosocial career preoccupations.

2.3.3.2 Race

Coetzee (2015) found that race showed significant associations with all three psychosocial career preoccupations. Coetzee and Stoltz (2015) posited that black people have more career adaptation concerns owing to the presence of greater career opportunities available to them. Coetzee and Stoltz (2015) came to this conclusion because their study found that black people showed significantly higher levels of career adaptability than white people. Coetzee (2016a, 2017) found that whilst significant relations exist between race and the three psychosocial career preoccupations, the associations were small in practical effect and were deemed to be negligible.

Bester (2018) found that the career adaptation preoccupation is significantly related to race and found no significant relationship between race and the other two psychosocial career preoccupations. However, Takawira (2018) observed significant bi-variate relationships between the biographical variable of race and the overall psychosocial career preoccupations scale and subscales. In addition, it was found that race significantly predicted the construct of psychosocial career preoccupations. Whilst Takawira (2018) found that race does predict

psychosocial career preoccupations and differences do occur between the race groups, the methodology followed did not test for significant differences between the race groups themselves; the results of such tests might have provided relevant information to inform career development practices in the racially diverse post-apartheid workplace.

2.3.3.2 Gender

Career adaptability is a core component of the career adaptation psychosocial career preoccupation. Coetzee and Stoltz (2015) found no significant differences between males and females with regard to their career adaptability. However, Coetzee and Harry (2015) found that males scored lower on all career adaptability dimensions (career concern, career control, career confidence and career curiosity) than females and that gender significantly predicted an individual's career adaptability. Bester (2018) found no significant association between gender and psychosocial career preoccupations.

2.3.3.4 Job Level

According to research conducted by Bester (2018), job level is significantly positively correlated with all subscales of the Psychosocial Career Preoccupation Scale (PCPS), namely, the career establishment preoccupation subscale, the career adaptation preoccupation subscale and the work–life adjustment preoccupation subscale. Job level was also found to be significantly positively correlated with the overall PCPS. Takawira (2018) found that managers obtained significantly lower mean scores on psychosocial career preoccupations than staff level employees.

2.3.4 Section synthesis

This section highlighted the fact that work, through a career, provides a context for human development, that individuals strive to implement their self-concept through their career and that individuals will experience career concerns or psychosocial career preoccupations as they interact with their environment in the quest to overcome career developmental tasks and challenges for the implementation of their self-concept. Furthermore, the theories of Super (1957, 1990) and Savickas (2013) were explicated to provide a context for the construct of psychosocial career preoccupations as devised by Coetzee (2014b).

Research on the construct of psychosocial career preoccupations is scant and under-researched in the South African context (Coetzee, 2017). Whilst it was found that psychosocial career preoccupations are significantly associated with the employability capacities of individuals, research on the direct association between psychological career resources that may lead to the development of the employability capacities and psychosocial career preoccupations is yet to be investigated comprehensively and thus requires further examination in the South African context. Furthermore, results of the various studies differ in regard to the association between the biographical variables and the construct of psychosocial career preoccupations. As a consequence, the results of various studies have not indicated a clear, definitive picture of the association between biographical variables and the construct in the South African context.

2.4 LINK BETWEEN PSYCHOSOCIAL CAREER PREOCCUPATIONS AND PSYCHOLOGICAL CAREER RESOURCES

According to self-determination theory (Deci & Ryan, 2000), a state of intrinsic motivation is achieved by satisfying the needs of competence, autonomy and relatedness. From a self-determination theory perspective, the needs for competence, autonomy and relatedness offer a meta-theoretical lens for explicating how an individual's psychological career resources, as a set of psychological career meta-capacities, are seen to contribute to the individual's experience of psychosocial career preoccupations.

Coetzee and Schreuder (2018) posited that certain psychological career resources may assist in satisfying intrinsic motivational needs and initiate proactive career self-management. Specifically, it was posited that career values that drive career choices towards roles that support an individual's need for growth/development or authority/influence address the need for autonomy, and that the psychological career resources of social connectivity address the need for relatedness. Coetzee and Schreuder (2018) suggest that the need for competence is addressed through a number of psychological career resources. Competence is addressed through the psychological career resources that promote goal-directed behaviour (career purpose, career directedness, career venturing), mastering one's environment and creating opportunities for self-expression through one's career enablers (practical/creative skills and self/other skills, as well as self-esteem, behavioural adaptability and emotional literacy) (Coetzee & Schreuder, 2018).

From the perspective of self-determination theory (Deci & Ryan, 2000), psychosocial career preoccupations may be viewed as concerns that arise when the psychological needs of competence, autonomy and relatedness have not been met by the individual. Therefore, it can

be argued that the preoccupations of career establishment, career adaptation and work/life adjustment arise when certain psychosocial career meta-capacities (psychological career resources) have not been fully developed; this is done in the quest to help the individual engage in proactive career self-management behaviour which would reduce or alleviate aligned psychosocial career preoccupations and increase career satisfaction.

Hence, the specific lack of psychological career resources, or an underdeveloped psychological career resource, may contribute to a specific psychosocial career concern being prevalent within the individual. Such psychosocial career preoccupations motivate the individual to become more adaptable in the quest to attain the relevant career meta-capacities that improve self-perceived employability (Coetzee & Engelbrecht, 2019). Bester (2018) found that the only psychological career resource that significantly correlated with the three psychosocial career preoccupations was career values, although career values did not correlate with the overall psychosocial career preoccupations scale.

According to Coetzee (2017), there is scant research on the psychosocial career preoccupations construct. Research on the association between psychosocial career preoccupations and psychological career resources is also limited and warrants further investigation for a diverse South African working population that must pursue proactive career self-management in the context of the 21st century world of work.

The hypotheses for the empirical study are stated again as follows:

- H1 Individuals' psychological career resources are positively and significantly associated with their psychosocial career preoccupations.
- H2 Individuals' psychological career resources significantly and positively predict their psychosocial career preoccupations.
- H3 Individuals from different gender, age, race and job-level groups will differ significantly regarding their psychological career resources and psychosocial career preoccupations.

2.5 CHAPTER SUMMARY

This chapter addressed the aims of the literature review. The chapter explicated a metatheoretical context for the constructs within the 21st century world of work. Careers in the contemporary work environment were discussed and the impact of the macro-forces of globalisation, technological innovation and sociodemographic shifts on contemporary career management was discussed. The protean and boundaryless careers in contemporary career management were defined and described with relevance to the 21st century world of work.

The constructs of psychological career resources and psychosocial career preoccupations were conceptualised and relevant theories elaborated, and previous research was critically discussed. In addition, the implications of the theoretical link between the constructs was discussed for career development practice.

The association between psychological career resources and psychosocial career preoccupations was elucidated using self-determination theory, such that when the components of intrinsic motivation have not been realised, psychosocial career preoccupations arise and one's psychological career resources may be tapped to alleviate these concerns. It was postulated that psychological career resources, which are contributors to building employability capacities, may possibly lead to psychosocial career concerns if specific psychological career resources are underdeveloped. The research aims of the literature review were thus achieved.

In Chapter 3, the empirical investigation and results will be discussed.

CHAPTER 3 RESEARCH ARTICLE

This chapter will take the form of a research article because of the format of this dissertation of limited scope. In this chapter, psychological career resources and psychosocial career preoccupations will be contextualised and explicated. Furthermore, the hypotheses, research method, measuring instruments and data analysis will be presented. The results of the study will be examined and discussed before the limitations and recommendations are explicated.

ABSTRACT

The study explored the association between psychological career resources and psychosocial career preoccupations. The participants comprised a convenience sample of N=314 individuals of varying race, age, gender and job-level groups from the South African workforce. Multiple regression analysis showed that career values positively predicted career preoccupations, career preferences positively predicted career adaptation concerns, career drivers negatively predicted career adaptation concerns, while career harmonisers negatively predicted work/life adjustment concerns. Tests for significant mean differences revealed that males and females did not differ significantly regarding their psychological career resources and psychosocial career preoccupations. However, significant differences were revealed for race, age and job level regarding psychosocial career preoccupations and psychological career resources (with the exception of job level which yielded significant differences for psychosocial career preoccupations only). The results provided new insights that may inform recommendations for career development practices.

Keywords: psychological career resources, psychosocial career preoccupations, career establishment preoccupations, career adjustment preoccupations, work/life adjustment preoccupations, career preferences, career values, career enablers, career drivers, career harmonisers.

3.1 INTRODUCTION

The contemporary career necessitates that individuals possess psychosocial career metacompetencies in order to effectively mitigate their career concerns as part of proactive career development in an uncertain, turbulent 21st century work environment (Coetzee, 2008, 2014a, b; Coetzee & Schreuder, 2018; Savickas & Porfeli, 2012). The macro-forces that shape the modern globalised workplace and influence the career development of workers include increased business competition, rapid technological advancement as part of the nascent Fourth Industrial Revolution and sociodemographic shifts in the size, structure and composition of the workforce (Brown, Gosling & Sethi, 2017; Coetzee & Schreuder, 2018; Hall, 2004; Hirschi, 2018; Makridakis, 2017; Schwab, 2018a). Such forces have contributed to greater career concerns for contemporary workers as they endeavour to establish and advance in their careers and adapt to changes in the 21st century world of work (Coetzee, 2014b; Hirschi, 2018; Savickas, 2013, 2019; Savickas & Porfeli, 2012; Schwab, 2018a). As organisations have evolved to become increasingly multinational, workers are finding themselves competing against a globalised pool of talent against a backdrop of greater organisational demand for knowledge workers (Agwu & Nwosu, 2017; Luthans, 2015; Manyika et al., 2015; Schreuder & Coetzee, 2011).

The rapid pace of technological advancement, including the advent of artificial intelligence, the digitisation of the workplace and robotics, has meant that workers in many jobs are being replaced and certain skills have become redundant, leading to unemployment (Bughin et al., 2018; Buguin et al., 2013; Manyika et al., 2017; Peters, 2017; Schwab, 2018a). In order to attain the relevant repertoire of skills, workers are required to possess the relevant career meta-capacities that enable them to build their employability to levels that allow them to compete effectively in the modern labour market (Coetzee, 2014a; Coetzee & Engelbrecht, 2019; Hirschi, 2018; Schreuder & Coetzee, 2011). The modern world of work also necessitates that workers possess competencies that help them to interact effectively with one another in a multicultural, diverse workforce (Coetzee, 2014a; Jyoti & Kour; 2015). Workers are also forced to be proactive agents in driving their career development to keep pace with technological advancement so that their skill sets are relevant in the contemporary workplace (Coetzee, 2014a; Coetzee & Schreuder, 2018; Manyika et al., 2017).

Macro-level forces have also had a profound influence on organisations (Brown et al., 2017; Hirschi, 2018). In order to remain competitive in the current business landscape, organisations are forced to be agile and flexible in responding to change (Brown et al., 2017; Coetzee & Schreuder, 2018; Hall, 2004; Hirschi, 2018; Makridakis, 2017). To achieve this, organisations employ cost-cutting measures, apply flatter organisational structures, streamline processes, and provide fewer opportunities for permanent employment and greater opportunities for contract work (Cummings & Worley, 2014; Schreuder & Coetzee, 2011). This has resulted in greater job insecurity among workers than was the case in the traditional 20th century career, which was characterised by stable employment, fewer career transitions, upward career progression and loyal workers (Hirschi, 2018; Nagy, Froidevaux & Hirschi, 2018; Schreuder & Coetzee, 2011). Consequently, the contemporary career has reconceptualised career

success from being objective (pay increases, promotion) to subjective in nature, where workers strive to have a subjectively meaningful career through the effective implementation of their evolving self-concept in their work (Hall & Chandler, 2005; Hirschi, 2018; Nagy et al., 2018; Schreuder & Coetzee, 2011).

The subjective career has emphasised that workers are less dependent on organisational arrangements in driving their career development, tending to adopt a protean attitude characterised by the individual being a proactive career agent in shaping and reshaping their future in a manner that is congruent with their career identity (Coetzee, 2014a; Coetzee & Schreuder, 2018; Hirschi, 2018; Savickas, 2013 Schreuder & Coetzee, 2011). Individuals are forced to build their employability, be resilient and adapt to the changing career environment (Arthur, 1994; Coetzee, 2008; Coetzee & Schreuder, 2018; Hall, 1996; Lyons, Schweitzer, & Ng, 2015; Maree, 2017; Mishra & McDonald, 2017; Trevor-Roberts, Parker, & Sandberg, 2018). The background on the contemporary world sketched in the preceding section clearly indicates the need for individuals to possess career-related competencies in order to build and uphold their employability in the quest to deal effectively with their career concerns, as they self-manage their careers across the career lifespan (Coetzee, 2014a; Maree, 2017).

3.1.1 OBJECTIVE OF THE STUDY

The objective of the study was to explore the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees. The secondary objective of the study was to incorporate the primary objective with specific references to the way people from different gender, age, race and job-level groups view their psychosocial career preoccupations and psychological career resources. Currently, little research has been conducted on this topic despite the key role these constructs play in proactive career self-management. New knowledge gained from this study could be used to inform career guidance and practice.

3.1.2 PSYCHOLOGICAL CAREER RESOURCES

According to Coetzee (2014a), career meta-capacities are the psychosocial capabilities that enable individuals to be proactive, adaptive, self-directed learners in building and enacting their career and employability in the uncertain, turbulent world of work. According to Coetzee (2008, 2014a), psychological career resources are the reservoir of career meta-capacities, which comprise the constituents that form the "career consciousness" of a person. This career

consciousness includes the components of career preferences, career values, career drivers, career enablers and career harmonisers. Career preferences and career values guide the career decisions of individuals as they comprise their unique views on how to navigate their careers and help to define what a career means to them. Career preferences are the career actions that individuals take to achieve their career values, whilst values are used to motivate and guide individuals in their career decisions and actions. There are four career preferences (autonomy/independence, managerial, stability/expertise and creativity/variety) and two career values (growth/development and authority/influence). Career enablers are the transferable skills that assist individuals to successfully plan, develop and reinvent their careers in a particular sociocultural context and include an individual's practical/creative skills and self/other skills. Careers drivers constitute career purpose, career directedness and career venturing and are the intrinsic motivations that drive career actions and intentions. Career harmonisers, which include self-esteem, behavioural adaptability, emotional literacy and social connectivity, help to positively affect an individual's wellbeing by building resilience and adaptability. In order to attain optimum career development of the individual, the various components of the psychological career resources construct must be in balance (Coetzee, 2008; 2014a).

Previous research has shown psychological career resources to be potential predictors of people's happiness, life satisfaction and job/career satisfaction and their perception that work is meaningful (Coetzee & Bergh, 2009). Career resources are related to people's career anchors (Coetzee & Schreuder, 2009); are related to their affective commitment to the organisation (Ferreira, Basson & Coetzee, 2010), their coping resources (Coetzee & Esterhuizen, 2010), and their work and career commitment (Tladinyane, 2012); significantly contribute to explaining their retention-related dispositions (Tladinyane, Coetzee & Masenge, 2013); and are a predictor of job embeddedness (Ferreira & Coetzee, 2014; Ferreira, Coetzee & Masenge, 2013). Collectively, most research conducted on psychological career resources has been correlational in nature. Specifically, scant research has sought to examine the extent to which psychological career resources is able to predict one's psychosocial career preoccupations.

3.1.3 PSYCHOSOCIAL CAREER PREOCCUPATIONS

Coetzee (2014b) explicates that a psychosocial career preoccupation is the mental state of having career concerns at the forefront of one's mind at a particular point in time. As an individual endeavours to continually attain the best fit between their evolving career self-concept and the uncertain, turbulent work environment, they will develop career concerns or

psychosocial career preoccupations regarding the vocational developmental tasks they have to confront in the process of this adaptation (Savickas, 2005, 2013). According to Savickas (2002, 2011, 2013), career construction theory emphasises career concerns as being at the forefront of the individual's career-life story. These assist in informing vocational development tasks that are critical to achieving stability in each career life stage in the essential process of career identity development. Proactive career behaviour and attitudes that help to construct an individual's career by improving the fit between the individual and the situation are promoted through one's career preoccupations (Coetzee, 2017; Coetzee, Ferreira, & Potgieter, 2015; Coetzee & Schreuder, 2018

Coetzee (2014b) identifies three core psychosocial career preoccupations. Career establishment preoccupations involve concerns about fitting into a group, attaining career and economic stability and security, establishing opportunities for self-expression and personal growth and development, and advancing in one's career in the present organisation. Career adaptation preoccupations involve employability-related concerns about adapting to changing contexts that might involve career changes and adjusting one's interests, talents and capabilities to fit opportunities in the employment market. Work/life adjustment preoccupations involve concerns about settling down, reducing one's workload and achieving greater harmony between one's work and personal life, and may also involve withdrawing from paid employment altogether (Coetzee, 2014b).

3.1.4 PSYCHOLOGICAL CAREER RESOURCES IN RELATION TO PSYCHOSOCIAL CAREER PREOCCUPATIONS

According to self-determination theory (Deci & Ryan, 2000), a state of intrinsic motivation is achieved by satisfying the needs of competence, autonomy and relatedness. From a self-determination theory perspective, these needs offer a meta-theoretical lens for explaining how an individual's psychological career resources, as a set of psychological career meta-capacities, are seen to contribute to the individual's experience of psychosocial career preoccupations. According to Coetzee and Schreuder (2018) proactive career self-management may be initiated through the satisfaction of intrinsic motivational needs via an individual's repertoire of psychological career resources. Specifically, it was posited that career values address the need for autonomy and that social connectivity addresses the need for relatedness. Coetzee and Schreuder (2018) posited that several psychological career resources may address the need for competence. Competence is addressed through the psychological career resources that assist individuals to master their environment and create opportunities for self-expression via their career enablers (practical/creative skills and

self/other skills) and career harmonisers (self-esteem, behavioural adaptability and emotional literacy) and through psychological career resources that promote goal-directed behaviour (career purpose, career directedness, career venturing) (Coetzee & Schreuder, 2018). Therefore, through the lens of self-determination theory, psychological career resources can be viewed as career meta-competencies which assist the individual to satisfy intrinsic motivational needs that enable proactive career self-management. In turn, proactive career self-management which is characterised by the pursuit of career development tasks, alleviate an individual's career concerns or psychosocial career preoccupations. Hence, the effective utilisation of one's psychological career resources can be seen to ensure that psychosocial career preoccupations does not have a maladaptive effect on one's career.

From the perspective of self-determination theory (Deci & Ryan, 2000), psychosocial career preoccupations may be viewed as concerns that arise when the individual's psychological needs of competence, autonomy and relatedness have not been met. Therefore, it may be argued that the preoccupations of career establishment, career adaptation and work/life adjustment arise when certain psychosocial career meta-capacities (psychological career resources) have not been fully developed. This may occur in the quest to help the individual engage in proactive career self-management behaviour which would reduce or alleviate aligned psychosocial career preoccupations and increase career satisfaction. Hence, the specific lack of a psychological career resource, or an underdeveloped psychological career resource, may contribute to a specific psychosocial career concern being prevalent within the individual. Bester (2018) found that the only psychological career resource that significantly correlated with the three psychosocial career preoccupations was career values, although career values did not correlate with the overall psychological career preoccupations scale.

According to Coetzee (2017), there is scant research on the psychosocial career preoccupations construct. Research on the association between psychological career preoccupations and psychological career resources is also limited and warrants further investigation for a diverse South African working population (in terms of different genders, ages, races and job levels) that has to pursue proactive career self-management in the context of the 21st century world of work.

The hypotheses for the empirical study are stated as follows:

 H1 – Individuals' psychological career resources are positively and significantly associated with their psychosocial career preoccupations.

- H2 Individuals' psychological career resources significantly and positively predict their psychosocial career preoccupations.
- H3 Individuals from different gender, age, race and job-level groups will differ significantly regarding their psychological career resources and psychosocial career preoccupations.

3.2 METHOD

3.2.1 Participants and procedure

Data was collected using an online web survey on the LinkedIn social media platform from a convenience sample (N = 314) of professional networks. The participants were predominantly female (72.5%), between the ages of 18 and 45 years (78.8%), African (38.1%), and were employed as professionals (52.6%) on a full-time basis (83.9%) and worked in government or professional services (41.8%). Most participants held a postgraduate degree (53.7%) and had been in their current job for at least six years (64.1%). Participants were mostly unmarried (52.3%).

3.2.2 Ethical considerations

The data was collected after obtaining ethics clearance (Certificate Ref#: 2018_CEMS/IOP_026) from the research institution. Informed consent was obtained from participants and their responses were treated as private and confidential. The participants' dignity was upheld and the researcher did not cause harm to the participants. The participants were informed of their rights and could have withdrawn their participation at any time, Overall, the researcher acted in accordance with the HPCSA Code of Ethical Conduct.

3.2.3 Measuring instruments

Psychological career resources. The Psychological Career Resources Inventory (PCRI: Coetzee, 2014a) was used to measure the psychological career resources of participants. Five meta-constructs were measured on a six-point Likert-type scale (1 = strongly disagree; 6 = strongly agree): career preferences (17 items; e.g. "I will feel successful in my career only if I become a senior manager in some organisation"); career values (6 items; e.g. "I like to be knowledgeable and skilled in what I do"); career enablers (9 items; e.g. "I am good at putting

my ideas into practical plans and making them work for me"); career drivers (11 items; e.g. "I know where and how to find the help and support I need to achieve my career goals"); and career harmonisers (21 items; e.g. "I can show when I am sad or angry"). The internal consistency reliability coefficients for these subscales were as follows: .86 (career preferences), .81 (career values), .86 (career enablers), .83 (career drivers) and .90 (career harmonisers), respectively.

Psychosocial career preoccupations. The Psychosocial Career Preoccupations Scale (PCPS: Coetzee, 2014b) was used to measure the psychosocial career preoccupations of participants. The measure consists of 26 items measuring the following three forms of career concerns: career establishment (13 items; e.g. "To what extent are you concerned about being autonomous, finding your own niche in life?"), career adaptation (5 items; e.g. "To what extent are you concerned about how your concept of your interests, talent and capabilities fit with your current job or career?"), and work–life adjustment (6 items; e.g. "To what extent are you concerned about balancing work with family responsibilities?"). Respondents were required to rate each item on a five-point Likert-type scale (1 = not concerned; 5 = extremely concerned). The internal consistency reliability coefficients for these subscales were as follows: .94 (career establishment preoccupations), .86 (career adaptation preoccupations) and .72 (work/life adjustment preoccupations), respectively.

3.2.4 Statistical analysis

Descriptive statistics, Cronbach's alpha coefficients and zero-order correlations were calculated. The SAS (2013) ANOVA procedure was utilised for the multiple regression analysis. Tests for significant mean differences were performed by means of the independent samples t-test (gender) and ANOVAs for multigroups (age, race and job level).

3.3 RESULTS

3.3.1 Descriptive statistics and bivariate correlations

Table 3.1 shows that the zero-order correlations among the three forms of career preoccupations and the career preferences, career values and career enablers were significant and positive, ranging between $r \ge .15$ and $r \le .27$ (small practical effect; $p \le .05$). However, the career drivers and career harmonisers did not correlate significantly with the

career establishment and career adaptation preoccupations. The career harmonisers also did not correlate significantly with the work/life adjustment preoccupations.

The zero-order correlations show that race was significantly and negatively correlated with the three forms of career preoccupations, ranging between $r \ge -.25$ and $r \le -.31$ (small to moderate practical effect; $p \le .001$). Race was significantly and negatively correlated with career values, career enablers, career drivers and career harmonisers, ranging between $r \ge -.19$ and $r \le -.28$ (small practical effect; $p \le .001$).

The zero-order correlation between gender and career harmonisers was significant and negative at $r \ge -.12$ (small practical effect; $p \le .05$); the zero-order correlation between age and the three forms of career preoccupations was significant and negative, ranging between $r \ge -.24$ and $r \le -.38$ (small to moderate practical effect; $p \le .001$); and the zero-order correlation between age and the psychological career resources of career preferences and career values was significant and negative, at $r \le -.14$ (small practical effect; $p \le .05$).

The zero-order correlations between the three forms of adaptive career preoccupations were significant and positive, and ranged between $r \ge .59$ and $r \le .71$ (large practical effect; $p \le .001$). The zero-order correlations between the five psychological career resources subscales were significant and positive, and ranged between $r \ge .59$ and $r \le .65$ (large practical effect; $p \le .001$).

Table 3.1.

Descriptive Statistics, Cronbach's Alpha Coefficients and Bivariate Correlations

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Race														
2	Gender														
3	Age														
4	Job level														
5	Career establishment concerns	3.45	1.08	31***	.02	38***	06	(.94)							
6	Career adaptation concerns	2.85	1.13	22***	01	21***	04	.69***	(.87)						
7	Work/life adjustment concerns	2.93	.92	25***	03	24***	05	.71***	.59***	(.73)					
8	Career preferences	4.83	.92	11	08	- 14*	.03	.16**	.20***	.19***	(.86)				
9	Career values	5.38	.79	21***	05	14*	01	.27***	.21***	.22***	.51***	(.81)			
10	Career enablers	5.07	.68	19***	04	07	.04	.15**	.15*	.20***	.58***	.50***	(.86)		
11	Career drivers	4.99	.77	28***	10	09	01	.06	04	.15**	.39***	.36***	.65***	(.84)	
12	Career harmonisers	4.80	.68	19***	12*	05	02	.01	.03	.63	.38***	.27***	.58***	.`60***	(.91)

Notes: N = 314. *** $p \le .001$. ** $p \le .01$. * $p \le .05$. Cronbach alpha coefficients are reported on the diagonal in brackets. SD: standard deviation.

The correlation results provided evidence in support of research hypothesis 1: H1 – Individuals' psychological career resources are positively and significantly associated with their psychosocial career preoccupations.

3.3.2 Multiple regression analysis

Three multiple regression models were conducted, one for each of the psychosocial career preoccupations. The ANOVAs were significant:

- Model 1: career establishment concerns: $F = 8.10 p = .001 R^2 = .20$ (moderate practical effect)
- Model 2: career adaptation concerns: $F = 4.32 p = .001 R^2 = .10$ (moderate practical effect)
- Model 3: work/life adjustment concerns: $F = 4.01 p = .001 R^2 = .10$ (moderate practical effect)

Career values significantly and positively contributed to explaining the variance in all three adaptive career preoccupations: career establishment concerns (β = .23; p = .000), career adaptation concerns (β = .15; p = .05), and work/life adjustment concerns (β = .14; p = .05). Career preferences significantly and positively contributed to explaining the variance in career adaptation concerns (β = .15; p = .05), while career harmonisers significantly and negatively contributed to explaining the variance in work/life adjustment concerns (β = -.17; p = .05) and career drivers significantly and negatively contributed to explaining the variance in career adaptation concerns (β = -.25; p = .01).

- Race contributed negatively to explaining the variance in all three forms of adaptive career concerns.
- Gender did not significantly contribute to explaining the variance in all three forms of adaptive career concerns.
- Age contributed negatively to explaining the variance in career establishment concerns (β = -.19; p = .01) and work/life adjustment concerns (β = -.14; p = .05).
- Job level contributed positively to explaining the variance in career establishment concerns $(\beta = .13; p = .05)$ and career adaptation concerns $(\beta = .16; p = .01)$.

Table 3.2 *Multiple Regression Analysis*

	Career establishment concerns		Career adap	tation concerns	Work/life adjustment concerns		
	β	t	β	t	β	t	
Race	18	-3.12**	13	-2.17*	13	-2.12*	
Gender	04	64	04	69	07	-1.26	
Age	19	-3.28**	03	43	14	-2.22*	
Job level	.13	2.26*	.16	2.65**	.01	.20	
Career	.01	.11	.15	2.01*	.06	.85	
preferences							
Career values	.23	3.62***	.15	2.16*	.14	2.06*	
Career	.15	1.79	.11	1.28	.14	1.53	
enablers							
Career drivers	13	-1.67	25	-3.08**	.06	.67	
Career	10	-1.49	01	09	17	-2.26*	
harmonisers							
Model info							
Fp	8.10***		4.32***		4.01***		
ΔFp	5.48***		5.21***		4.24***		
R²	.20		.10		.10		
ΔR^2	.08		.08		.07		

Note: N = 314. *** $p \le .001$. ** $p \le .01$. * $p \le .05$.

The results of the multiple regression provided partial evidence in support of research hypothesis 2: H2: Individuals' psychological career resources significantly and positively predict their psychosocial career preoccupations.

3.3.3 Tests for significant mean differences

3.3.3.1 Gender

Independent samples t-tests were performed to test for significant differences between the gender groups. The statistical procedure revealed that males and females did not differ significantly regarding their psychological career resources and psychosocial career preoccupations. For parsimony reasons these results are not reported here.

The ANOVA multigroup procedure was performed to test for significant mean differences between the age, race and job-level groups. The Tukey HSD (honest significant difference) procedure was used as a post-hoc test to determine the source of significant differences.

3.3.3.2 Race

Table 3.3 shows that the race groups differed significantly regarding their career establishment preoccupations (F = 10.63; p = .00). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 3.84; SD = .91) and Indian (mean = 3.38; SD = 1.13) and white race group (mean = 3.05; SD = 1.05). The Tukey HDS post-hoc test showed that Africans scored significantly higher than the Indian (p = .02; Cohen d = .45; small practical effect) and the white groups (p = .00; Cohen d = .81; large practical effect) on their career establishment preoccupations.

Table 3.3 shows that the race groups differed significantly regarding their career adaptation preoccupations (F = 5.04; p = .002). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 3.15; SD = 1.08), the Indian (mean = 2.67; SD = 1.14) and the white groups (mean = 2.60; SD = 1.10). The Tukey HDS post-hoc test showed that Africans scored significantly higher than the Indian (p = .028; Cohen p = .028; small practical effect) and the white race groups (p = .002; Cohen p = .50; moderate practical effect) on their career adaptation preoccupations.

Table 3.3 shows that the race groups differed significantly regarding their work/life adjustment preoccupations (F= 7.77; p= .00). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 3.24; SD = .91), Indian (mean = 2.84; SD = .94) and white race groups (mean = 2.68; SD = .82). The Tukey HDS post-hoc test showed that Africans scored significantly higher than the Indian (p = .017; Cohen d = .44; small practical effect) and the white race groups (p = .00; Cohen p = .64; moderate practical effect) on their work/life career preoccupations.

Table 3.3 shows that the race groups differed significantly regarding their career values (F = 4.44; p = .005). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 5.58; SD = .66), Indian (mean = 5.24; SD = .93) and white race groups (mean = 5.27; SD = .71). The Tukey HDS post-hoc test showed that Africans scored significantly higher than the Indian (p = .027; Cohen d = .41; small practical effect) and the white race groups (p = .022; Cohen d = .45; small practical effect) on their career values.

Table 3.3 shows that the race groups differed significantly regarding their career enablers (F = 3.18; p = .024). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 5.19; SD = .65) and the white race groups (mean = 4.91; SD =

.62), while the Tukey HDS post-hoc test showed that Africans scored significantly higher than whites (p = .015; Cohen d = .44; small practical effect) on their career enablers.

Table 3.3 shows that the race groups differed significantly regarding their career drivers (F = 10.55; p = .00). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 5.21; SD = .62) and the white race groups (mean = 4.65; SD = .82). Significant differences were also detected between the Indian (mean = 5.08; SD = .67) and the white race groups. In addition, the Tukey HDS post-hoc test showed that Africans scored significantly higher than whites (p = .00; Cohen d = .76; moderate practical effect) on their career drivers. This test also showed that Indians scored significantly higher than whites (p = .002; Cohen d = .57; moderate practical effect) on their career drivers.

Table 3.3 shows that the race groups differed significantly regarding their career harmonisers (F = 4.72; p = .003). Table 3.4 reveals that the post-hoc test detected significant differences between the African (mean = 4.96; SD = .63) and the white race groups (mean = 4.61; SD = .68), while the Tukey HDS post-hoc test showed that Africans scored significantly higher than the white race group (p = .001; Cohen d = .53; moderate practical effect) on their career harmonisers.

Table 3.3

ANOVA: Test for Significant Mean Differences: Race

	_	SS	df	MS	F	р
Career_establishment	Between groups	33.808	3	11.269	10.633	.000
	Within groups	323.266	305	1.060		
	Total	357.075	308			
Career_adaptation	Between groups	18.739	3	6.246	5.040	.002
	Within groups	377.985	305	1.239		
	Total	396.724	308			
Worklife_adjustment	Between groups	18.451	3	6.150	7.774	.000
	Within groups	241.304	305	.791		
	Total	259.755	308			
Values	Between groups	7.996	3	2.665	4.439	.005
	Within groups	183.123	305	.600		
	Total	191.120	308			
Enablers	Between groups	4.254	3	1.418	3.183	.024
	Within groups	135.871	305	.445		
	Total	140.125	308			

Drivers	Between groups	16.953	3	5.651	10.547	.000
	Within groups	162.872	304	.536		
	Total	179.824	307			
Harmonisers	Between groups	6.389	3	2.130	4.718	.003
	Within groups	137.228	304	.451		
	Total	143.617	307			

Note: N = 309; SS: sum of squares; MS: mean square; df: degrees of freedom.

Table 3.4

Post-hoc Test Tukey HSD: Test for Significant Mean Differences: Race

			Mean			95%	CI	
			difference					Cohen's
Dependent variable	(I) Race:	(J) Race:	(I-J)	SE	р	LL	UL	d
Career_establishment	1 African	3 Indian	.45953*	.15801	.020	.0514	.8677	0.45
		4 White/Caucasian	.79216*	.14165	.000	.4263	1.1581	0.81
	3 Indian	1 African	45953*	.15801	.020	8677	0514	0.45
	4 White/Caucasian	1 African	79216*	.14165	.000	-1.1581	4263	0.81
Career_adaptation	1 African	3 Indian	.47806*	.17086	.028	.0367	.9194	0.43
		4 White/Caucasian	.54934*	.15316	.002	.1537	.9450	0.50
	3 Indian	1 African	47806*	.17086	.028	9194	0367	0.43
	4 White/Caucasian	1 African	54934*	.15316	.002	9450	1537	0.50
Worklife_adjustment	1 African	3 Indian	.40434*	.13651	.017	.0517	.7570	0.44
		4 White/Caucasian	.55844*	.12238	.000	.2423	.8746	0.64
	3 Indian	1 African	40434*	.13651	.017	7570	0517	0.44
	4 White/Caucasian	1 African	55844*	.12238	.000	8746	2423	0.64
Values	1 African	3 Indian	.33461*	.11892	.027	.0274	.6418	0.41
		4 White/Caucasian	.30686*	.10661	.022	.0315	.5823	0.45
	3 Indian	1 African	33461*	.11892	.027	6418	0274	0.41
	4 White/Caucasian	1 African	30686*	.10661	.022	5823	0315	0.45
Enablers	1 African	4 White/Caucasian	.27718*	.09183	.015	.0400	.5144	0.44
	4 White/Caucasian	1 African	27718*	.09183	.015	5144	0400	0.44
Drivers	1 African	4 White/Caucasian	.55611*	.10100	.000	.2952	.8170	0.76
	3 Indian	4 White/Caucasian	.42947*	.11755	.002	.1258	.7331	0.57
	4 White/Caucasian	1 African	55611*	.10100	.000	8170	2952	0.76
		3 Indian	42947*	.11755	.002	7331	1258	0.57
Harmonisers	1 African	4 White/Caucasian	.34797*	.09271	.001	.1085	.5875	0.53
	4 White/Caucasian	1 African	34797*	.09271	.001	5875	1085	0.53

Note: N = 309. African n = 119; White/Caucasian n = 95; Indian n = 66; Coloured n = 29; *p < .05; SE: standard error; CI = confidence interval; LL = lower limit; UL = upper limit.

3.3.3.3 Age

Table 3.5 shows that the age groups differed significantly regarding their career establishment preoccupations (F = 27.99; p = .00). Table 3.6 reveals that the post-hoc test detected significant differences between the 18 to 30 year age group (mean = 3.88; SD = .91), the 31 to 45 year age group (mean = 3.44; SD = .98) and the 46 years and older age group (mean = 2.74; SD = 1.14). Post-hoc tests also detected significant differences between the 31 to 45 year age group and the 46 years and older group. The Tukey HDS post-hoc test showed that the 18 to 30 year age group scored significantly higher than the 31 to 45 year age group (p = .002; Cohen d = .47; small practical effect) and the 46 years and older group (p = .00; Cohen d = 1.11; large practical effect) on their career establishment preoccupations. The Tukey HDS post-hoc test showed that the 46 years and older group scored significantly lower than the 31 to 45 year age group (p = .000; Cohen d = .66; moderate practical effect) on their career establishment preoccupations.

Table 3.5 shows that the age groups differed significantly regarding their career adaptation preoccupations (F = 7.06; p = .001). Table 3.6 reveals that the post-hoc test detected significant differences between the 46 years and older group (mean = 2.41; SD = 1.13) and the 18 to 30 year age group (mean = 3.05; SD = 1.04) and the 31 to 45 year age group (mean = 2.88; SD = 1.15). The Tukey HDS post-hoc test showed that the 46 years and older group scored significantly lower than the 18 to 30 year age group (p = .001; Cohen p = .001; Cohen p = .001; Cohen p = .001; moderate practical effect) and the 31 to 45 year age group (p = .001; Cohen p = .001; small practical effect) on their career adaptation preoccupations.

Table 3.5 shows that the age groups differed significantly regarding their work/life adjustment preoccupations (F = 10.86; p = .00). Table 3.6 reveals that the post-hoc test detected significant differences between the 46 years and older group (mean = 2.53; SD = .89) and the 18 to 30 year age group (mean = 3.17; SD = .88) and the 31 to 45 year age group (mean = 2.94; SD = .89). The Tukey HDS post-hoc test showed that the 46 years and older group scored significantly lower than the 18 to 30 year age group (p = .00; Cohen d = .72; moderate practical effect) the 31 to 45 year age group (p = .006; Cohen d = .46; small practical effect) on their work/life adjustment preoccupations.

Table 3.5 shows that the age groups differed significantly regarding their career preferences (F = 3.32; p = .037). Table 3.6 reveals that the post-hoc test detected significant differences between the 18 to 30 year age group (mean = 4.99; SD = .91) and the 31 to 45 year age group (mean = 4.70; SD = .98). The Tukey HDS post-hoc test showed that the 18 to 30 year age

group scored significantly higher than the 31 to 45 year age (p = .034; Cohen d = .31; small practical effect) on their career preferences.

Table 3.5 shows that the age groups differed significantly regarding their career values (F = 3.16; p = .044). Table 3.6 reveals that the post-hoc test detected significant differences between the 18 to 30 year age group (mean = 5.51; SD = .71) and the 46 years and older group (mean = 5.22; SD = .84). The Tukey HDS post-hoc test showed that the 18 to 30 year age group scored significantly higher than the 46 years and older group (p = .050; Cohen d = .36; small practical effect) on their career values.

The statistical procedures revealed that age groups did not differ significantly regarding career enablers, career drivers and career harmonisers. For parsimony reasons these results are not reported here.

Table 3.5

ANOVA: Test for Significant Mean Differences: Age

		SS	df	MS	F	p
Career_establishment	Between groups	55.113	2	27.557	27.990	.000
preoccupations	Within groups	306.181	311	.985		
	Total	361.295	313			
Career_adaptation	Between groups	17.359	2	8.679	7.057	.001
preoccupations	Within groups	382.467	311	1.230		
	Total	399.825	313			
Worklife_adjustment	Between groups	17.048	2	8.524	10.855	.000
preoccupations	Within groups	244.213	311	.785		
	Total	261.262	313			
Career preferences	Between groups	5.641	2	2.821	3.322	.037
	Within groups	264.067	311	.849		
	Total	269.709	313			
Career values	Between groups	3.853	2	1.927	3.163	.044
	Within groups	189.428	311	.609		
	Total	193.281	313			

Note: N = 314. SS: sum of squares; *MS:* mean square; *df:* degrees of freedom.

Table 3.6

Post-hoc Test Tukey HSD: Test for Significant Mean Differences: Age

Dependent variable	(I) Age:	(J) Age:	Mean	SE	р	95%	6 CI	
			difference			LL	UL	Cohen
			(I-J)					d
Career_establishment	1 18-30	2 31–45	.43867*	.12673	.002	.1402	.7371	0.46
preoccupations		3 46 older	1.14456*	.15299	.000	.7843	1.5049	1.11
	2 31-45	1 18–30	43867*	.12673	.002	7371	1402	0.46
		3 46 older	.70589*	.14846	.000	.3563	1.0555	0.66
	3 46-	1 18–30	-1.14456*	.15299	.000	-1.5049	7843	1.11
	older	2 31–45	70589*	.14846	.000	-1.0555	3563	0.66
Career_adaptation preoccupations	1 18-30	3 46 older	.63452*	.17099	.001	.2318	1.0372	0.58
	2 31-45	3 46 older	.47264*	.16593	.013	.0819	.8634	0.41
	3 46-	1 18–30	63452*	.17099	.001	-1.0372	2318	0.58
	older	2 31–45	47264*	.16593	.013	8634	0819	0.41
Worklife_adjustment preoccupations	1 18-30	3 46 older	.63652*	.13664	.000	.3147	.9583	0.72
precocapations	2 31-45	3 46 older	.40896*	.13259	.006	.0967	.7212	0.46
	3 46-	1 18–30	63652*	.13664	.000	9583	3147	0.72
	older	2 31–45	40896*	.13259	.006	7212	0967	0.46
Career preferences	1 18-30	2 31–45	.29522*	.11769	.034	.0181	.5724	0.31
	2 31-45	1 18–30	29522*	.11769	.034	5724	0181	0.31
Career values	1 18-30	3 46 older	.28349*	.12034	.050	.0001	.5669	0.36
	3 46-	1 18–30	28349*	.12034	.050	5669	0001	0.36
	older							

Note: N = 314. Age group 18–30 years: n = 113; Age group 31–45 years: n = 134; Age group 46 years and older: n = 67; * $p \le .05$; SE: standard error; CI = confidence interval; LL = lower limit; UL = upper limit.

3.3.3.4 Job level

Table 3.7 shows that the job-level groups differed significantly regarding their career establishment preoccupations (F = 12.56; p = .00). Table 3.8 reveals that the post-hoc test detected significant differences between managers (mean = 3.09; SD = 1.13), professionals (mean = 3.42; SD = 1.05) and staff members (mean = 3.95; SD = .82). The Tukey HDS post-hoc test showed that managers scored significantly lower than both professionals (p = .047; Cohen p = .30; small practical effect) and staff members (p = .00; Cohen p = .87; large practical effect) on their career establishment preoccupations.

Table 3.7 shows that the job-level groups differed significantly regarding their career adaptation preoccupations (F = 6.96; p = .001). Table 3.8 reveals that the post-hoc test

detected significant differences between staff members (mean = 3.28; SD = .94), professionals (mean = 2.82; SD = 1.14) and managers (mean = 2.59; SD = 1.18). The Tukey HDS post-hoc test showed that staff members scored significantly higher than both professionals (p = .016; Cohen d = .45; small practical effect) and managers (p = .00; Cohen d = .65; moderate practical effect) on their career adaptation preoccupations.

Table 3.7

ANOVA: Test for Significant Mean Differences: Job Level

		SS	df	MS	F	р
Career_establishment	Between groups	26.645	2	13.323	12.561	.000
	Within groups	320.322	302	1.061		
	Total	346.967	304			
Career_adaptation	Between groups	17.229	2	8.614	6.957	.001
	Within groups	373.934	302	1.238		
	Total	391.163	304			

Note: N = 305. SS: sum of squares; MS: mean square; df: degrees of freedom.

Table 3.8

Post-hoc Test Tukey HSD: Test for Significant Mean Differences: Job Level

			Mean			95% (CI	_
			difference (I-					Cohen's
Dependent variable	(I) Job title	(J) Job title	J)	SE	р	LL	UL	d
Career_establishment	1 Professional	2 Staff member	53275*	.15407	.002	8956	1699	.57
		3 Manager	.33197*	.13931	.047	.0038	.6601	.30
	2 Staff member	1 Professional	.53275*	.15407	.002	.1699	.8956	
		3 Manager	.86471*	.17288	.000	.4575	1.2719	.87
	3 Manager	1 Professional	33197*	.13931	.047	6601	0038	
		2 Staff member	86471*	.17288	.000	-1.2719	4575	
Career adaptation	1 Professional	2 Staff member	46406*	.16646	.016	8561	0720	.45
	2 Staff member	1 Professional	.46406*	.16646	.016	.0720	.8561	
		3 Manager	.68928*	.18679	.001	.2493	1.1292	.65
	3 Manager	2 Staff member	68928*	.18679	.001	-1.1292	2493	

Note: N = 305. Professional n = 160; Staff member n = 62; Manager n = 83; p < 0.05. SE: standard error; CI = confidence interval; p = 0.05. SE: standard error; CI = confidence interval; p = 0.05. SE: standard error; CI = confidence interval; p = 0.05.

The results of the tests for significant mean differences provided evidence in support of research hypothesis 3: H3 – Individuals from different gender, age, race and job level groups

will differ significantly regarding their psychological career resources and psychosocial career preoccupations.

3.4 DISCUSSION

The general research aim of the study was to explore the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees. This study has uncovered psychological career resources, specifically career preferences, career values, career drivers and career harmonisers, as significant predictors of individuals' psychosocial career preoccupations. The findings add credence to the suggestion put forward by Coetzee and Schreuder (2018) that certain psychological career resources may assist in satisfying intrinsic motivational needs which initiate proactive career self-management. Whilst Bester (2018) found that career values are significantly correlated with career preoccupations, the current study supports this finding and further revealed that career preferences and career enablers are also significantly correlated with the three forms of career preoccupations. Moreover, the present study revealed that career drivers are correlated with work/life adjustment preoccupations.

The observation that career values positively predicted participants' career preoccupations could be attributed to the fact that preoccupations arise as and when participants strive to achieve their career values, which represent the guiding principles, career needs or motivational goals that direct all career activities of the individual throughout the lifespan (Abessolo, Hirschi, & Rossier, 2017; Coetzee, 2014a; Savickas, 2013).

It should be noted that career preferences significantly and positively predicted career adaptation concerns. Career preferences are the actions that individuals take to achieve their career needs (career values) (Coetzee, 2014a). Naturally, these actions would include vocational tasks related to adaptability that individuals must undertake as they implement the self-concept and engage in proactive career development (Savickas, 2013).

On the other hand, career drivers negatively predicted career adaptation concerns. As career drivers include the individual's career purpose (career calling) and career directedness (clarity about future career goals), the finding aligns with recent literature which has found that individuals who have a career calling and who are clear about their future goals are more likely to exhibit career inflexibility (lower levels of career adaptability) (Lysova et al., 2018).

Career harmonisers negatively explained the variance in work/life adjustment preoccupations. Career harmonisers include the competencies that help individuals attain a sense of psychological wellbeing (Coetzee, 2014a), and work/life adjustment preoccupations tend to arise in the process of pursuing psychological wellbeing. Fittingly, this finding suggests that individuals with a well-developed repertoire of career harmonisers tend to experience higher negative levels of work/life adjustment preoccupations, highlighting the important role of career harmonisers in reducing individuals' work/life adjustment preoccupations.

Race significantly explained the variance in all three forms of career concerns (career establishment, career adaptation and work/life adjustment preoccupations). Specifically, Africans scored significantly higher means for all psychosocial career preoccupations compared to whites and Indians. Africans also scored significantly higher means than whites on psychological career resources (career values, career enablers, career drivers, career harmonisers). These findings are in line with previous studies showing that Africans tend to have a stronger set of psychological career resources and greater psychosocial career preoccupations than other race groups (Bester, 2018; Coetzee, 2008). A possible explanation for this is that Africans have greater career advancement opportunities in post-apartheid South Africa than other race groups, which has necessitated a higher sense of the psychosocial career meta-competencies required to proactively engage in their career development. This process of advancing their career development has resulted in greater career concerns relative to other race groups.

Gender did not correlate significantly with psychological career resources and psychosocial career preoccupations. This finding is supported by Bester's (2018) research in this regard. However, Bester (2018) did find significant mean differences between males and females regarding their career preferences and career establishment preoccupations, which was not evident in this study. Furthermore, gender did not predict psychosocial career preoccupations, implying that males and females experience psychosocial career preoccupations in a similar manner. This is supported by the fact that the modern workplace encourages diversity and women empowerment which may result in men and women having similar career concerns.

The significant differences regarding participants' job level and their career establishment and career adaptation preoccupations, specifically the significantly higher mean levels for staff level employees relative to those at management level positions, is noteworthy. A possible explanation for this finding is that employees at lower levels of the organisational hierarchy are generally starting out in their careers and will have a greater need to establish themselves

and adapt to their career in the evolving world of work, especially in comparison to senior, older employees who have already established themselves in their chosen career. This view is supported by the fact that the 18 to 30 year old participants in this study tended to report significantly higher levels of psychological career resources and psychosocial career preoccupations than other age groups. Furthermore, the preliminary study by Bester (2018) lends support to significant age and job-level differences in relation to individuals' psychological career resources and psychosocial career preoccupations. These findings confirm the expectation that older employees will tend to have lower career establishment and career adaptation preoccupations, as employees in this age group include those who are in the disengagement stage of their careers, as they prepare themselves for retirement and life outside work (Schreuder & Coetzee, 2011). Unexpectedly, the findings revealed that older employees have lower levels of work/life adjustment than younger employees. This may be because older employees have less need to balance work and family, as their children tend to be older and independent and do not require as much of their time compared to employees in the lower age brackets.

3.5 Implications for career development practice

The findings of this research have important implications for the career development of individuals. The importance of individuals developing their career preferences, career values, career drivers and career harmonisers as a means to alleviate their psychosocial career preoccupations has assumed increased salience in the turbulent, evolving, contemporary world of work. Career development guidance and practice should focus on developing the components that underlie these specific psychological career resources to equip individuals to better manage their career development. As part of this process, career development guidance and practice should also take cognisance of race, age and job level, as these biographical variables have been revealed to be important predictors of individuals' psychosocial career preoccupations.

3.6 Limitations of the research design and recommendations for future research

Owing to the cross-sectional design of the study, no cause—effect relations between variables can be established. Furthermore, the generalisability of the results may be impeded by the composition of the sample, as the sample comprised mostly females and its racial makeup is not congruent with the racial makeup of the South African workforce. It is suggested that future research looks at replicating this study to confirm the predictive nature of individuals' psychological career resources on their psychosocial career preoccupations. Future research should also explore the impact of mediating variables on the association between the two

constructs, as this will have implications for career counselling and proactive career management of individuals.

3.7 CONCLUSION

This study has revealed individuals' psychological career resources (career preferences, career values, career drivers and career harmonisers) to be predictors of their psychosocial career preoccupations. The findings contribute to the proactive career management of individuals, as individuals could potentially better manage their psychosocial career concerns by harnessing and developing the requisite competencies that predict those specific concerns.

3.8 Acknowledgements

The authors are grateful to the participants who voluntarily participated in the study.

3.9 Declaration of conflicting interests

The authors hereby declare that they have no conflict of interest and that the article has not been submitted elsewhere for either review or publication.

3.10 Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

3.11 CHAPTER SUMMARY

This chapter took the form of a research article. Psychological career resources and psychosocial career preoccupations were described and the association between the variables were hypothesised. Thereafter, the research method, which included a description of the participants and the procedure, considerations of research ethics, measuring instruments and statistical analysis, was elaborated. The results were then analysed and discussed. The results supported all the hypotheses proposed in the study and provide new insights in regard to the association between psychosocial career preoccupations and psychological career resources, as well as career counselling as a whole. The limitations and recommendations were also explicated.

3.12 REFERENCES

Abessolo, M., Hirschi, A., & Rossier, J. (2017). Work values underlying protean and boundaryless career orientations. *Career Development International*, *22*(3), 241–259. https://doi.org/10.1108/CDI-10-2016-0167

Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior*, *15*(4), 295–306. https://doi.org/10.1002/job.4030150402

Agwu, A. O., & Nwosu, M. C. (2017). Managing the 21st century workers in the knowledge economy. *EBSU Journal of Social Sciences and Humanities*, *5*(1).

Bester, S. M. (2018). *Toward constructing a psychosocial model of career wellbeing for the South African working adult* (Unpublished doctoral thesis). University of South Africa.

Brown, J., Gosling, T., & Sethi, B. (2017). *Workforce of the future: The competing forces shaping 2030.* PwC. https://www.pwc.com/gx/en/services/people-organisation/workforce-of-the-future-the-competing-forces-shaping-2030-pwc.pdf

Buguin, J., Dobbs, R., Bisson, P., & Marrs, A. (2013, May). Disruptive technologies: Advances that will transform life, business, and the global economy. McKinsey Global Institute. https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Disruptive%20technologies/MGI_Disruptive_technologies_Full_report_May 2013.ashx

Bughin, J., Hazan, E., Lund, S., Dahlstrom, P., Wiesinger, A., & Subramaniam, A. (2018, May 23). *Skills shift: Automation and the future of the workforce. McKinsey Global Institute.* https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce#

Chilisa, B., & Kawulich, B. (2012). Selecting a research approach: Paradigm, methodology and methods. In C Wagner, B Kawulich, & M Garner (Eds.), *Doing social research: A global context* (pp. 51-61). McGraw-Hill.

Coetzee, M. (2008). Psychological career resources of working adults: A South African survey. *SA Journal of Industrial Psychology, 34*(2), 10–20.

Coetzee, M. (2014a). A psychological career resources framework for contemporary career development. In M. Coetzee (Ed.), *Psycho-social career meta-capacities* (pp. 87–115). Springer International. https://doi.org/10.1007/978-3-319-00645-1_6

Coetzee, M. (2014b). Exploratory factor analysis of the career preoccupations scale: A preliminary analysis of its reliability and construct validity (Unpublished research report). University of South Africa.

Coetzee, M. (2017). Graduates' psycho-social career preoccupations and employability capacities in the work context. In M. Tomlinson, & L. Holmes (Eds.), *Graduate employability in context* (pp. 295–315). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-57168-7_14

Coetzee, M., & Bergh, Z. C. (2009). Psychological career resources and subjective work experiences of working adults: An exploratory study. *Southern African Business Review*, 13(2), 1-31.

Coetzee, M., & Engelbrecht, L. (2019). How employability attributes mediate the link between knowledge workers' career adaptation concerns and their self-perceived employability. *Psychological Reports*, 1-22. https://doi.org/10.1177/0033294119844981

Coetzee, M., & Esterhuizen, K. (2010). Psychological career resources and coping resources of the young unemployed African graduate: An exploratory study. *SA Journal of Industrial Psychology*, *36*(1), 1–9. https://doi.org/10.4102/sajip.v36i1.868

Coetzee, M., Ferreira, N., & Potgieter, I. L. (2015). Assessing employability capacities and career adaptability in a sample of human resource professionals. *SA Journal of Human Resource Management*, *13*(1), 9 pages. http://dx.doi.org/10.4102/sajhrm.v13i1.682

Coetzee, M., & Schreuder, D. (2009). Psychological career resources as predictors of working adults' career anchors: An exploratory study. *SA Journal of Industrial Psychology*, *35*(1), 117–127. https://doi.org/10.4102/sajip.v35i1.833

Coetzee, M., & Schreuder, D. (2018). Proactive career self-management: Exploring links among psychosocial career attributes and adaptability resources. *South African Journal of Psychology*, *48*(2), 206–218. https://doi.org/10.1177%2F0081246317719646

Cummings, T. G., & Worley, C. G. (2014). *Organization development and change* (9th ed.). Cengage Learning.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Ferreira, N., Basson, J., & Coetzee, M. (2010). Psychological career resources in relation to organisational commitment: An exploratory study. *SA Journal of Human Resource Management*, 8(1), 1-10. https://doi.org/10.4102/sajhrm.v8i1.284

Ferreira, N., & Coetzee, M. (2014). Psychological career resources as predictors of employees' job embeddedness: An exploratory study. *South African Journal of Labour Relations*, 38(2), 9-26.

Hall, D. T. (1996). Protean careers of the 21st century. *The Academy of Management Executive*, 10(4), 8–16. https://doi.org/10.5465/ame.1996.3145315

Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior*, 65(1), 1–13. https://doi.org/10.1016/j.jvb.2003.10.006

Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 26(2), 155–176. https://doi.org/10.1002/job.301

Hirschi, A. (2018). The Fourth Industrial Revolution: Issues and implications for career research and practice. *Career Development Quarterly*. *66*(3), 192-204. https://doi.org/10.1002/cdq.12142

Jyoti, J., & Kour, S. (2015). Assessing the cultural intelligence and task performance equation: Mediating role of cultural adjustment. *Cross Cultural Management*, *22*(2), 236–258. https://doi.org/10.1108/CCM-04-2013-0072

Luthans, F. (2015). *Organizational behavior: An Evidence Based Approach* (12th ed.). McGraw-Hill/Irwin. https://bdpad.files.wordpress.com/2015/05/fred-luthans-organizational-behavior-_-an-evidence-based-approach-twelfth-edition-mcgraw-hill_irwin-2010.pdf

Lyons, S. T., Schweitzer, L., & Ng, E. S. (2015). Resilience in the modern career. *Career Development International*, 20(4), 363–383. https://doi.org/10.1108/CDI-02-2015-0024

Lysova, E. I., Jansen, P. G., Khapova, S. N., Plomp, J., & Tims, M. (2018). Examining calling as a double-edged sword for employability. *Journal of Vocational Behavior*, *104*, 261–272. https://doi.org/10.1016/j.jvb.2017.11.006

Makridakis, S. (2017). The forthcoming artificial intelligence (AI) revolution: Its impact on society and firms. *Futures*, *90*, 46–60. https://doi.org/10.1016/j.futures.2017.03.006

Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., Ko, R. & Sanghvi, S. (2017, December). *Jobs lost, jobs gained: Workforce transitions in a time of automation*. McKinsey. https://www.mckinsey.com/~/media/mckinsey/featured%20insights/Future%20of%20Organiz ations/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx

Manyika, J., Lund, S., Robinson, K., Valentino, J., & Dobbs, R. (2015, June). *A labor market that works: Connecting talent with opportunity in the digital age.* McKinsey Global Institute. https://www.mckinsey.com/~/media/mckinsey/featured%20insights/Employment%20and%20 Growth/Connecting%20talent%20with%20opportunity%20in%20the%20digital%20age/MGI %20Online%20talent_A_Labor_Market_That_Works_Executive_%20summary_June%2020 15.ashx

Maree, J. G. K. (2017). Opinion piece: Using career counselling to address work-related challenges by promoting career resilience, career adaptability, and employability. *South African Journal of Education*, 37(4), 1-5. https://doi.org/10.15700/saje.v37n4opinionpiece

Mishra, P., & McDonald, K. (2017). Career resilience: An integrated review of the empirical literature. *Human Resource Development Review*, *16*(3), 207–234. https://doi.org/10.1177%2F1534484317719622

Nagy, N., Froidevaux, A., & Hirschi, A. (2018). *Lifespan perspectives on careers and career development*. In B. Baltes, C. Rudolph, & H. Zache (Eds.), Work across *the lifespan* (pp. 235–259). Academic Press. https://doi.org/10.1016/B978-0-12-812756-8.00010-4

Peters, M. A. (2017). Technological unemployment: Educating for the fourth industrial revolution. *Educational Philosophy and Theory, 49*(1), 1–6. https://doi.org/10.1080/00131857.2016.1177412

Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown (Ed.), *Career choice and development* (pp. 149–205). Wiley.

Savickas, M. L. (2005). The theory and practice of career construction, In R. W. Lent, & S. D. Brown (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed.). John Wiley & Sons.

Savickas, M. L. (2011). New questions for vocational psychology: premises, paradigms, and practices. *Journal of Career Assessment,* 19(3), 251–258. https://doi.org/10.1177%2F1069072710395532

Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown, & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42–70) (2nd ed.). Wiley.

Savickas, M. L. (2019). The world of work and career interventions. In M. L. Savickas (Ed.), *Theories of psychotherapy series: Career counseling* (pp. 3–14). American Psychological Association. http://dx.doi.org/10.1037/0000105-001

Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, *80*(3), 661–673. https://doi.org/10.1016/j.jvb.2012.01.011

Schreuder, D., & Coetzee, M. (2011). Careers an organisational perspective (4th ed.). Juta.

Schwab, K. (2018a). *Towards a reskilling revolution: A future of jobs for all*. World Economic Forum. http://www3.weforum.org/docs/WEF_FOW_Reskilling_Revolution.pdf

Tladinyane, R. T. (2012). Psychological career resources, work engagement and organisational commitment foci: A psychological profile for staff retention. University of South Africa.

Tladinyane, R., Coetzee, M., & Masenge, A. (2013). Psychological career meta-capacities in relation to employees' retention-related dispositions. *Southern African Business Review*, *17*(2), 140-163.

Trevor-Roberts, E., Parker, P., & Sandberg, J. (2018). How uncertainty affects career behaviour: A narrative approach. *Australian Journal of Management*, *44*(1), 50-69. https://doi.org/10.1177/0312896218775801

CHAPTER 4: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, the conclusions of the research study are discussed, followed by the study limitations and recommendations for future research. Specifically, the conclusions and limitations in relation to the literature review and empirical study are explicated. In conclusion, recommendations are made for the development of individuals' psychosocial career resources so that they are more equipped to deal with their psychosocial career preoccupations. Moreover, the contribution of the study to the field of career counselling in industrial and organisational psychology is explicated.

4.1 CONCLUSIONS

The focus of this section is to formulate conclusions relating to the literature review and the empirical study in this research.

4.1.1 Conclusions relating to the literature review.

The primary aim of the study was to explore the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees. The secondary aim of the study was to incorporate the primary aim with specific reference to the way people from different gender, age, race, and job-level groups differ regarding their psychosocial career preoccupations and psychological career resources.

The main aim was achieved through the following specific aims:

4.1.1.1 To conceptualise psychosocial career preoccupations and psychological career resources from a theoretical perspective

The first aim was achieved in Chapter 2 (the literature review).

This study defined and conceptualised the model of psychological career resources posited by Coetzee (2014a, 2018). Psychological career resources were defined as the repertoire of values, attitudes, abilities and attributes that form the career consciousness of the individual. Individuals' psychological career resources comprise career values, career preferences, career drivers, career enablers and career harmonisers. Career values (growth/development and authority/influence) and career preferences (autonomy/independence, managerial,

stability/expertise and creativity/variety) serve as a compass that helps to guide the career motivations, choices and decisions of individuals. Career drivers (career purpose, career directedness and career venturing) are the intrinsic motivations and career intentions of the individual. Career enablers (practical/creative skills and self/other skills) are the transferable skills that individuals utilise in the pursuit of career success. Career harmonisers (self-esteem, behavioural adaptability, emotional literacy and social connectivity) are agentic processes which individuals employ to enable resilience and career wellbeing in the process of career development (Coetzee, 2008, 2014a). Psychological career resources are seen as important psychosocial career meta-competencies that build employability, enable proactive career self-management and facilitate career adaptability as individuals navigate their careers in the modern day (Coetzee, 2008, 2014a).

Specific psychosocial career preoccupations were seen to be predominant in the various career life stages of the individual and needed to be overcome to enable effective career management (Savickas, 2013; Super, 1957, 1990). Psychosocial career preoccupations were defined as the (non-age related) psychological career concerns that individuals experience at a particular point in time, and which arise as individuals encounter career-related developmental tasks and challenges within a particular social context (Coetzee, 2014b, 2015, 2017). The three forms of adaptive career preoccupations are career establishment preoccupations (include concerns relating to fitting in within the work environment, achieving economic stability and security through paid employment), career adaptation preoccupations (concerns related to establishing and maintaining the optimal person-environment fit in one's career) and work–life adjustment preoccupations (concerns include achieving a greater work–life balance, settling down, decreasing one's workload and withdrawing from paid employment) (Coetzee, 2015, 2016a, 2017).

4.1.1.2 To conceptualise the implications of the theoretical link between the two constructs for career development practice

Other than the work of Bester (2018), no research has sought to examine a potential theoretical link between psychosocial career preoccupations and psychological career resources. For this purpose, self-determination theory (Deci & Ryan, 2000) was used to conceptualise a meta-theoretical link between the constructs. By applying self-determination theory, psychological career resources were explained as contributors to individuals' experience of psychosocial career preoccupations. Accordingly, intrinsic motivation is facilitated by satisfying the needs for competence, autonomy and relatedness. This view was

supported by Coetzee and Schreuder (2018), who explicated that certain psychological career resources intrinsically motivate individuals by satisfying the needs for competence, relatedness and autonomy, and as such, facilitate proactive career self-management (Coetzee & Schreuder, 2018). It was posited that, as individuals encounter vocational developmental tasks and challenges, and when psychological career resources are underdeveloped, certain psychosocial career preoccupations arise.

It was suggested that a potential theoretical link between the constructs would guide individuals on which psychological career resources to enhance or develop for the purposes of alleviating certain psychosocial career preoccupations. Career counsellors, industrial psychologists and human resources practitioners could potentially use the results to devise strategy, policy and career interventions that address the resolution of these psychosocial career preoccupations.

4.1.2 Conclusions relating to the empirical study

The study endeavoured to achieve the following three empirical aims:

- To explore the nature and magnitude of the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees. This aim was achieved by empirically testing hypothesis 1 (H1) and hypothesis 2 (H2).
- To explore how individuals from different gender, age, race, and job-level groups differ with regard to their psychological career resources and psychosocial career preoccupations. This aim was achieved by empirically testing hypothesis 3 (H3).
- To draw conclusions and formulate recommendations for future research and career development practices.

The empirical conclusions are indicated below:

4.1.2.1 To explore the nature and magnitude of the association between psychosocial career preoccupations and psychological career resources in a sample of South African employees

The aim was achieved by empirically testing hypothesis 1 (H1) and hypothesis 2 (H2). The following conclusions were drawn:

- Individuals' psychological career resources are positively and significantly associated
 with their psychosocial career preoccupations. However, the study found no
 statistically significant correlation between career harmonisers and the three adaptive
 psychosocial career preoccupations. Moreover, the study found no statistically
 significant correlation between career drivers and the two psychosocial career
 preoccupations of career establishment and career adaptation.
- Individuals' psychosocial career resources significantly positively (career values and career preferences) and negatively (career drivers and career harmonisers) predict their psychosocial career preoccupations.
- 4.1.2.2 To explore how individuals from different gender, age, race, and job-level groups differ with regard to their psychological career resources and psychosocial career preoccupations

The aim was achieved by empirically testing hypothesis 3 (H3). The following conclusion was drawn:

- Individuals from different age, race and job-level groups differ significantly regarding their psychological career resources and psychosocial career preoccupations. No significant differences were found for the gender biographical variable.
- 4.1.2.3 To draw conclusions and formulate recommendations for future research and career development practices

This aim is addressed in this chapter. The following recommendations were formulated (refer to section 4.3 in this chapter):

It is recommended that career counsellors and organisations take cognisance of the predictive nature of individuals' psychological career resources regarding their psychosocial career preoccupations, as well as the biographical profile of individuals. Both organisations and career counsellors should offer career guidance pertaining to the psychological career resources required to equip individuals to confront their psychosocial career preoccupations and better navigate their careers in the turbulent 21st century world of work. Suggestions for

future research include conducting the study on a larger sample and using a longitudinal research design to investigate causal relationships between the constructs.

4.2 LIMITATIONS

This section focuses on the research limitations relating to the literature review and empirical study.

4.2.1 Limitations of the literature review

- A dearth of research exists on the association between individuals' psychological career resources and their psychosocial career preoccupations within the South African context.
- Previous research conducted on psychological career resources and psychosocial career resources is cross-sectional in nature. Hence, such research may not have captured the true nature of the constructs.

4.2.2 Limitations of the empirical study

- Although the sample comprised N = 314 participants, a larger sample is needed to
 establish a definite association between psychological career resources and
 psychosocial career preoccupations and the sociodemographic variables in the study.
- The Linkedin social media platform would have tainted the methodology of this study, as a substantial number of South Africa's workforce would not have access to this website, thereby resulting in a sample that is not congruent with South Africa's workforce demographics.
- The sample was not a true representation of the various biographical groups that comprise the South African population. Hence, the results of this study cannot be generalised to the South African workforce.
- Convenience sampling would have limited representation to those individuals who
 have direct contact with the researcher and who meet certain criteria (being South
 African and working adults) which would have limited the generalisability of the sample.
- South Africa is a multilingual society where English is not the predominant first language. It is therefore reasonable to posit that some participants may have had difficulty in completing the questionnaires as they may not have understood the items in the questionnaire correctly.

- The PCRI and PCPS are self-report measuring instruments. Hence, participants respond to questions based on their point of view, which would have negatively influenced the validity of the study.
- Owing to the cross-sectional design of the study, causal relationships between the variables could not be determined.

4.3 RECOMMENDATIONS

4.3.1 Recommendations for career development guidance and practice

- Organisations should support employees by offering adequate career counselling and guidance services to enhance their career values, career preferences, career drivers and career harmonisers for the effective management of their psychosocial career preoccupations.
- Career counsellors should take cognisance of the predictive nature of psychological career resources regarding individuals' psychosocial career preoccupations. Career counsellors should promote and guide the development of the relevant repertoire of psychological career resources through interventions that are fit for this purpose.
- Race, age and job level are revealed to be important predictors of individuals' psychosocial career preoccupations. Career counsellors should take cognisance of the impact of these biographical variables and apply appropriate interventions to the varied sociodemographic constituency of clientele.

4.3.2 Future research

- Future research should look to replicate the study with a larger sample to confirm the
 predictive nature of individuals' psychological career resources regarding their
 psychosocial career preoccupations.
- It is suggested that future research use a mixed-method longitudinal design to further
 examine and detail the association between the constructs as individuals navigate their
 careers over time. A longitudinal design would also allow for the testing of causal
 relationships between the constructs.
- Future research should examine the effect of variables that mediate the association between psychological career resources and psychosocial career preoccupations.
- Future research should adopt a research methodology that attempts to generalise findings to the South African workforce.

4.4 Integration of the study

In conclusion, this study has revealed psychological career resources, specifically career preferences, career values, career drivers and career harmonisers, as being significant predictors of individuals' psychosocial career preoccupations. The study has also revealed significant differences for race, age and job level regarding psychosocial career preoccupations and psychological career resources (with the exception of job level which yielded significant differences for psychosocial career preoccupations only).

The study uncovers the intrinsic motivational power of psychological career resources as being important stimulants of proactive career self-management. Career counsellors, industrial psychologists and organisations should take heed of the results of this study for the purposes of guiding individuals to build their repertoire of psychological career resources in order to face their vocational developmental tasks and challenges more effectively. Such an exercise must take cognisance of the significant biographical differences in this study to allow for a more tailored approach to alleviating individuals' psychosocial career preoccupations.

4.5 CHAPTER SUMMARY

This chapter explicated the conclusions and limitations of the literature review and the empirical study. Recommendations were made for career guidance and practice and suggestions for possible future research were formulated. This chapter concludes the study.

REFERENCES

Abessolo, M., Hirschi, A., & Rossier, J. (2017). Work values underlying protean and boundaryless career orientations. *Career Development International*, *22*(3), 241–259. https://doi.org/10.1108/CDI-10-2016-0167

Amdurer, E., Boyatzis, R. E., Saatcioglu, A., Smith, M. L., & Taylor, S. N. (2014). Long term impact of emotional, social and cognitive intelligence competencies and GMAT on career and life satisfaction and career success. *Frontiers in Psychology*, *5*, 1447. https://doi.org/10.3389/fpsyg.2014.01447

Anagnoste, S. (2018). Robotic automation process-the operating system for the digital enterprise. In *Proceedings of the International Conference on Business Excellence, 12(*1), 54–69). Sciendo. https://doi.org/10.2478/picbe-2018-0007

Antwi, S. K., & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and Management*, 7(3), 217–225.

Arrington, G. B., & Dwyer, R. J. (2018). Can four generations create harmony within a public-sector environment? *International Journal of Applied Management and Technology*, *16*(1), 12. https://doi.org/10.5590/ljamt.2018.17.1.01

Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior*, *15*(4), 295–306. https://doi.org/10.1002/job.4030150402

Arthur, M. B., & Rousseau, D. M. (1996). A career lexicon for the 21st century. *The Academy of Management Executive*, 10(4), 28–39. https://doi.org/10.5465/AME.1996.3145317

Aslam, U., Ilyas, M., Imran, M. K., & Rahman, U. (2016). Intelligence and its impact on managerial effectiveness and career success (evidence from insurance sector of Pakistan). *Journal of Management Development*, *35*(4), 505–516. https://doi.org/10.1108/JMD-10-2015-0153 Aziz, S., Zamary, S., & Wuensch, K. (2018). The endless pursuit for self-validation through attainment: An examination of self-esteem in relation to workaholism. *Personality and Individual Differences*, 121, 74–79. https://doi.org/10.1016/j.paid.2017.09.024

Babbie, E. (2013). The practice of social research (14th ed.). Cengage Learning.

Baluku, M. M., Löser, D., Otto, K., & Schummer, S. E. (2018). Career mobility in young professionals: How a protean career personality and attitude shapes international mobility and entrepreneurial intentions. *Journal of Global Mobility*, *6*(1), 102–122. https://doi.org/10.1108/JGM-10-2017-0041

Barley, S. R., Bechky, B. A., & Milliken, F. J. (2017). The changing nature of work: Careers, identities, and work lives in the 21st century. *Academy of Management Discoveries*, *3*(2), 111–115. https://doi.org/10.5465/amd.2017.0034

Berntson, E., Näswall, K., & Sverke, M. (2008). Investigating the relationship between employability and self-efficacy: A cross-lagged analysis. *European Journal of Work and Organizational Psychology*, *17*(4), 413–425. https://doi.org/10.1080/13594320801969699

Bester, S. M. (2018). *Toward constructing a psychosocial model of career wellbeing for the South African working adult* (Unpublished doctoral thesis). University of South Africa.

Bhatacherjee, A. (2012). Social science research: principles, methods and practices (2nd ed.).

Scholar

Commons.

https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1002&context=oa_textbooks

Bhorat, H., Lilenstein, K., Oosthuizen, M., & Thornton, A. (2016, November). *Vulnerability in employment: Evidence from South Africa.* Development Policy Research Unit, University of Cape

Town.

http://www.dpru.uct.ac.za/sites/default/files/image_tool/images/36/Publications/Working_Papers/DPRU%20WP201604.pdf

Bizzi, L. (2015). Social capital in organizations. In P. Baltes, & N. Smelser (Eds.), *International encyclopedia of the social & behavioral science* (pp. 181–185). Elsevier.

Blokker, R., Akkermans, J., Tims, M., Jansen, P., & Khapova, S. (2019). Building a sustainable start: The role of career competencies, career success, and career shocks in young professionals' employability. *Journal of Vocational Behavior*, *112*, 172-184. https://doi.org/10.1016/j.jvb.2019.02.013

Blustein, D. L. (2017). Epilogue: An essay about adaptability, employability, and resilience in an age of uncertainty. In K. Maree (Ed.), *Psychology of career adaptability, employability and resilience* (pp. 449–453). Springer. https://doi.org/10.1007/978-3-319-66954-0 26

Bolden, R., & O'Regan, N. (2016). Digital disruption and the future of leadership: An interview with Rick Haythornthwaite, chairman of Centrica and MasterCard. *Journal of Management Inquiry*, *25*(4), 438–446. https://doi.org/10.1177/1056492616638173

Brewer, A. M. (2018). *Encountering, Experiencing and Shaping Careers: thinking about careers in the 21st century.* Springer. https://doi.org/10.1007/978-3-319-96956-5

Bridgstock, R. S. (2018). Educational practices for employability and career development learning through social media: Exploring the potential of LinkedIn. In J. Higgs, D. Horsfall, S. Cork, & A. Jones, (Eds.), *Practice futures for the common good*. Sense-Brill. https://doi.org/10.1163/9789004400795_012

Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior*, *69*(1), 4–18. https://doi.org/10.1016/j.jvb.2005.09.002

Brougham, D., & Haar, J. (2018). Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA): Employees' perceptions of our future workplace. *Journal of Management & Organization*, *24*(2), 239-257. https://doi.org/10.1017/jmo.2016.55

Brown, J., Gosling, T., & Sethi, B. (2017). *Workforce of the future: The competing forces shaping 2030.* PwC. https://www.pwc.com/gx/en/services/people-organisation/workforce-of-the-future-the-competing-forces-shaping-2030-pwc.pdf

Bughin, J., Hazan, E., Lund, S., Dahlstrom, P., Wiesinger, A., & Subramaniam, A. (2018, May 23). Skills shift: Automation and the future of the workforce. McKinsey Global Institute.

https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce#

Buguin, J., Dobbs, R., Bisson, P., & Marrs, A. (2013, May). Disruptive technologies: Advances that will transform life, business, and the global economy. McKinsey Global Institute. https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Disruptive%20technologies/MGI_Disruptive_technologies_Full_report_May 2013.ashx

Cai, Z., Guan, Y., Li, H., Shi, W., Guo, K., Liu, Y., ... & Hua, H. (2015). Self-esteem and proactive personality as predictors of future work self and career adaptability: An examination of mediating and moderating processes. *Journal of Vocational Behavior*, *86*, 86–94. https://doi.org/10.1016/j.jvb.2014.10.004

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. Ravenio Books.

Caton, K. (2016). A humanist paradigm for tourism studies? Envisioning a collective alternative to epistemic literalism. In A. M. Munar, & T. Jamal (Eds.), *Tourism research paradigms: Critical and emergent knowledges* (pp. 35–56). Emerald Group. https://doi.org/10.1108/S1571-504320150000022009

Çekmecelioğlu, H. G., & Özbağ, G. K. (2016). Psychological empowerment and support for innovation in Turkish manufacturing industry: Relations with individual creativity and firm innovativeness. *Journal of East European Management Studies*, *21*(1), 10–34. https://doi.org/10.5771/0949-6181-2016-1-10

Chang, C. C. (2014). An instructional cycle for enhancing innovation-embedded employability. *Education* + *Training*, *56*(8/9), 870–883. https://doi.org/10.1108/ET-03-2014-0021

Chen, A., & Machin, D. (2020). Case Study: How Magazines Carry Western Consumer Values Around the World. *The Handbook of Magazine Studies*, 248-260. https://doi.org/10.1002/9781119168102.ch19

Chong, S., & Leong, F. T. (2017). Antecedents of career adaptability in strategic career management. *Journal of Career Assessment*, *25*(2), 268–280. https://doi.org/10.1177%2F1069072715621522

Clark, J. M., & Polesello, D. (2017). Emotional and cultural intelligence in diverse workplaces: Getting out of the box. *Industrial and Commercial Training*, *49*(7/8), 337–349. https://doi.org/10.1108/ICT-06-2017-0040

Coetzee, M. (2008). Psychological career resources of working adults: A South African survey. *SA Journal of Industrial Psychology*, *34*(2), 10–20.

Coetzee, M. (2014a). A psychological career resources framework for contemporary career development. In M. Coetzee (Ed.), *Psycho-social career meta-capacities* (pp. 87–115). Springer International. https://doi.org/10.1007/978-3-319-00645-1 6

Coetzee, M. (2014b). Exploratory factor analysis of the career preoccupations scale: A preliminary analysis of its reliability and construct validity (Unpublished research report). University of South Africa.

Coetzee, M. (2014c). Measuring student graduateness: Reliability and construct validity of the graduate skills and attributes scale. *Higher Education Research and Development*, 33(5), 887–902. https://doi.org/10.1080/07294360.2014.890572

Coetzee, M. (2014d). Exploring the mediating role of graduate attributes in relation to academic self-directedness in open distance learning. *Higher Education Research and Development*, 33(6), 1085–1098. https://doi.org/10.1080/07294360.2014.911260

Coetzee, M. (2015). Employees' psychosocial career preoccupations in relation to their work-related commitment. *Southern African Business Review, 19*(3), 30–47.

Coetzee, M. (2016a). Adaptive behaviour in the workplace: Psycho-social career preoccupations and openness to technological change. In V. Martin (Ed.), *Career development: theories, practices and challenges* (pp. 63–78). Nova Science.

Coetzee, M. (2016b). Psycho-social career preoccupations and employability capacities in the work context. In M. Tomlinson & L. Holmes (Eds.), *Graduate employability in context:* research, theory and debate. Palgrave. https://doi.org/10.1057/978-1-137-57168-7_14

Coetzee, M. (2017). Graduates' psycho-social career preoccupations and employability capacities in the work context. In M. Tomlinson, & L. Holmes (Eds.), *Graduate employability in context* (pp. 295–315). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-57168-7 14

Coetzee, M., & Bergh, Z. C. (2009). Psychological career resources and subjective work experiences of working adults: An exploratory study. *Southern African Business Review*, 13(2), 1-31.

Coetzee, M., & Bester, M. S. (2019). Probing the role of psychosocial career mechanisms in the harmonious work passion-career satisfaction link. *Personnel Review*, 48(5), *1135-1149*. https://doi.org/10.1108/PR-01-2018-0023

Coetzee, M., & Esterhuizen, K. (2010). Psychological career resources and coping resources of the young unemployed African graduate: An exploratory study. *SA Journal of Industrial Psychology*, *36*(1), 1–9. https://doi.org/10.4102/sajip.v36i1.868

Coetzee, M., Ferreira, N., & Potgieter, I. L. (2015). Assessing employability capacities and career adaptability in a sample of human resource professionals. *SA Journal of Human Resource Management*, *13*(1). http://dx.doi.org/10.4102/sajhrm.v13i1.682

Coetzee, M., Ferreira, N., & Shunmugum, C. (2017). Psychological career resources, career adaptability and work engagement of generational cohorts in the media industry. *SA Journal of Human Resource Management*, *15.* https://doi.org/10.4102/sajhrm.v15i0.868

Coetzee, M., & Harry, N. (2014). Emotional intelligence as a predictor of employees' career adaptability. *Journal of Vocational Behavior*, *84*, 90–97. https://doi.org/10.1016/j.jvb.2013.09.001

Coetzee, M., & Harry, N. (2015). Gender and hardiness as predictors of career adaptability: An exploratory study among Black call centre agents. *South African Journal of Psychology*, *45*(1), 81–92. https://doi.org/10.1177/0081246314546346

Coetzee, M., Oosthuizen, R. M., & Stoltz, E. (2016). Psychosocial employability attributes as predictors of staff satisfaction with retention factors. *South African Journal of Psychology*, 46(2), 232–243. https://doi.org/10.1177%2F0081246315595971

Coetzee, M. & Roythorne-Jacobs, H. (2007). Career counseling and guidance in the workplace: A manual for career practitioners. Juta.

Coetzee, M., & Schreuder, D. (2009). Psychological career resources as predictors of working adults' career anchors: An exploratory study. *SA Journal of Industrial Psychology*, *35*(1), 117–127. https://doi.org/10.4102/saijp.v35i1.833

Coetzee, M., & Schreuder, D. (2013). Career anchors and emotional intelligence as predictors of human resource staff graduateness skills and employability attributes. *South African Journal of Labour Relations*, *37*(2), 97–117.

Coetzee, M., & Schreuder, D. (2018). Proactive career self-management: exploring links among psychosocial career attributes and adaptability resources. *South African Journal of Psychology*, *48*(2), 206–218. https://doi.org/10.1177%2F0081246317719646

Coetzee, M., & Stoltz, E. (2015). Employees' satisfaction with retention factors: Exploring the role of career adaptability. *Journal of Vocational Behavior*, *89*, 83–91. https://doi.org/10.1016/j.jvb.2015.04.012

Colakoglu, S. N. (2011). The impact of career boundarylessness on subjective career success: The role of career competencies, career autonomy, and career insecurity. *Journal of Vocational Behavior*, 79(1), 47–59. https://doi.org/10.1016/j.jvb.2010.09.011

Cummings, T. G., & Worley, C. G. (2014). *Organization development and change* (9th ed.). Cengage Learning.

Daily, M., Medasani, S., Behringer, R., & Trivedi, M. (2017, December). *Self-driving cars*. Computer. https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8220479

Darini, M., Pazhouhesh, H., & Moshiri, F. (2011). Relationship between employee's innovation (creativity) and time management. *Procedia-Social and Behavioral Sciences*, *25*, 201–213. https://doi.org/10.1016/j.sbspro.2011.10.541

de Guzman, A. B., & Choi, K. O. (2013). The relations of employability skills to career adaptability among technical school students. *Journal of Vocational Behavior*, 82(3), 199–207. https://doi.org/10.1016/j.jvb.2013.01.009 Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227–268. https://doi.org/10.1207/S15327965 PLI1104_01

Agarwal, D., Bersin, J., & Lahiri, G. (2018). *The rise of the social enterprise*. Deloitte. https://www2.deloitte.com/content/dam/insights/us/articles/HCTrends2018/2018-HCtrends_Rise-of-the-social-enterprise.pdf

Douglass, R. P., & Duffy, R. D. (2015). Calling and career adaptability among undergraduate students. *Journal of Vocational Behavior*, *86*, 58–65. https://doi.org/10.1016/j.jvb.2014.11.003

Duffy, R. D., Dik, B. J., & Steger, M. F. (2011). Calling and work-related outcomes: Career commitment as a mediator. *Journal of Vocational Behavior*, 78(2), 210–218. https://doi.org/10.1016/j.jvb.2010.09.013

Duffy, R. D., Douglass, R. P., Autin, K. L., & Allan, B. A. (2014). Examining predictors and outcomes of a career calling among undergraduate students. *Journal of Vocational Behavior*, *85*(3), 309–318. https://doi.org/10.1016/j.jvb.2014.08.009

Dunning, J. H. (2014). *The globalization of business: The challenge of the 1990s*. Routledge. https://doi.org/10.4324/9781315743691

Eberhard, B., Podio, M., Alonso, A. P., Radovica, E., Avotina, L., Peiseniece, L., ... & Solé-Pla, J. (2017). Smart work: The transformation of the labour market due to the fourth industrial revolution. *International Journal of Business & Economic Sciences Applied Research*, *10*(3), 47-66. http://dx.doi.org/10.25103/ijbesar.103.03

Eldor, L., Westring, A. F., & Friedman, S. D. (2020). The Indirect Effect of Holistic Career Values on Work Engagement: A Longitudinal Study Spanning Two Decades. *Applied Psychology: Health and Well -Being*, *12*(1), 144-165. https://doi.org/10.1111/aphw.12177

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

Erikson, E. H. (1963). Eight ages of man, Childhood and Society. *Norton and Company*, 247-274.

Ferreira, N. (2012). Constructing a psychological career profile for staff retention (Doctoral dissertation). University of South Africa.

Ferreira, N., Basson, J., & Coetzee, M. (2010). Psychological career resources in relation to organisational commitment: An exploratory study. *SA Journal of Human Resource Management*, 8(1), 1-10. https://doi.org/10.4102/saihrm.v8i1.284

Ferreira, N., & Coetzee, M. (2010). Psychological career resources and organisational commitment: Exploring sociodemographic differences. *South African Journal of Labour Relations*, *34*(2), 25–41.

Ferreira, N., & Coetzee, M. (2013). Psychological career meta-competencies in relation to job embeddedness among human resource employees. *African Journal of Business Management*, 7(15), 1369-1378. https://doi.org/10.5897/AJBM2013.6880

Ferreira, N., & Coetzee, M. (2014). Psychological career resources as predictors of employees' job embeddedness: An exploratory study. *South African Journal of Labour Relations*, 38(2), 9-26.

Ferreira, N., Coetzee, M., & Masenge, A. (2013). Psychological career resources, career adaptability and hardiness in relation to job embeddedness and organizational commitment. *Journal of Psychology in Africa*, 23(1), 31–40. https://doi.org/10.1080/14330237.2013.10820591

Foxcroft, C., & Roodt, G. (2009). *An introduction to psychological assessment in the South African context* (3rd ed.). Oxford University Press.

Freud, S., & Bonaparte, P. M. (1954). The origins of psychoanalysis, Vol. 216. Imago.

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behaviour, 65*(1), 14–38. https://doi.org/10.1016/j.jvb.2003.10.005

Ganiron Jr, T. U. (2013). Social capital and career success of civil engineers towards designing career paths. *Procedia-Social and Behavioral Sciences*, *102*(1), 611–621. https://doi.org/10.1016/j.sbspro.2013.10.778

Ganzach, Y., & Pazy, A. (2014). Does core self evaluations predict career success? A reanalysis of Judge and Hurst (2008). *Journal of Research in Personality*, 48, 107–115. https://doi.org/10.1016/j.jrp.2013.11.003

Gazica, M. W., & Spector, P. E. (2015). A comparison of individuals with unanswered callings to those with no calling at all. *Journal of Vocational Behavior*, *91*, 1–10. https://doi.org/10.1016/j.jvb.2015.08.008

Ghosh, A. (2019). The global LGBT workplace equality movement. In N.A. Naples (Ed.), *Companion to sexuality studies* (pp. 445–463). John Wiley & Sons Ltd.

Guan, Y., Arthur, M. B., Khapova, S. N., Hall, R. J., & Lord, R. G. (2018). Career boundarylessness and career success: A review, integration and guide to future research. *Journal of Vocational Behavior 110*, 390-402. https://doi.org/10.1016/j.jvb.2018.05.013

Hall, D. T. (1996). Protean careers of the 21st century. *The Academy of Management Executive*, 10(4), 8–16. https://doi.org/10.5465/ame.1996.3145315

Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior*, 65(1), 1–13. https://doi.org/10.1016/j.jvb.2003.10.006

Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 26(2), 155–176. https://doi.org/10.1002/job.301

Hamtiaux, A., Houssemand, C., & Vrignaud, P. (2013). Individual and career adaptability: Comparing models and measures. *Journal of Vocational Behavior*, 83(2), 130-141.

Harvey, W. (2014). Winning the global talent war: A policy perspective. *Journal of Chinese Human Resource Management*, *5*(1), 62–74. https://doi.org/10.1108/JCHRM-01-2014-0003

Hashem, I. A. T., Yaqoob, I., Anuar, N. B., Mokhtar, S., Gani, A., & Khan, S. U. (2015). The rise of "big data" on cloud computing: Review and open research issues. *Information Systems*, *47*, 98–115. https://doi.org/10.1016/j.is.2014.07.006

Havenga, M. (2011). The relationship between career adaptability and academic achievement in the course of life design counselling (Unpublished master's thesis). University of Pretoria, Pretoria, South Africa.

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence Based Nursing*, *18*(3), 66–67. http://dx.doi.org/10.1136/eb-2015-102129

Hess, N., & Jepsen, D. M. (2009). Career stage and generational differences in psychological contracts. *Career Development International*, 14(3), 261–283. https://doi.org/10.1108/13620430910966433

Hirschi, A. (2018). The Fourth Industrial Revolution: Issues and implications for career research and practice. *Career Development Quarterly*. *66*(3), 192-204. https://doi.org/10.1002/cdq.12142

International Labour Office. (2014). *Decent work country profile: South Africa*. International Labour Office. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_180322.pdf

International Monetary Fund (2018, April). *World Economic Outlook April 2018: Cyclical upswing,* structural change. IMF. https://www.imf.org/en/Publications/WEO/Issues/2018/03/20/world-economic-outlook-april-2018

Ismail, S., Ferreira, N., & Coetzee, M. (2016). Young emerging adults' graduateness and career adaptability: Exploring the moderating role of self-esteem. *Journal of Psychology in Africa*, *26*(1), 1–10. https://doi.org/10.1080/14330237.2016.1148417

Jain, R., & Jain, S. (2013). Conceptualization, measure development and empirical assessment of career oriented attitudes and employability of technology graduates. *Vision:*The Journal of Business Perspective, 17(2), 143–157.
https://doi.org/10.1177%2F0972262912483528

Jyoti, J., & Kour, S. (2015). Assessing the cultural intelligence and task performance equation: Mediating role of cultural adjustment. *Cross Cultural Management*, *22*(2), 236–258. https://doi.org/10.1108/CCM-04-2013-0072

Kim, S., Kim, H., & Lee, J. (2015). Employee self-concepts, voluntary learning behavior, and perceived employability. *Journal of Managerial Psychology*, *30*(3), 264–279. https://doi.org/10.1108/JMP-01-2012-0010

Khan, N & Forshaw, T (2017), New skills now: inclusion in the digital economy, Accenture. https://www.accenture.com/t20171012T025413Z__w__/in-en/_acnmedia/PDF-62/Accenture-New-skills-Now-Report.pdf

Klare, B. F., Klein, B., Taborsky, E., Blanton, A., Cheney, J., Allen, K., Grother P., Mah, A. & Jain, A. K. (2015). Pushing the frontiers of unconstrained face detection and recognition: larpa janus benchmark a. In *Proceedings of the IEEE conference on computer vision and pattern recognition* (pp. 1931–1939). CvF.org. https://www.cvfoundation.org/openaccess/content_cvpr_2015/papers/Klare_Pushing_the_Frontiers_2015_CVPR_paper.pdf

Kolbjørnsrud, V., Amico, R., & Thomas, R. J. (2017). Partnering with AI: how organizations can win over skeptical managers. *Strategy & Leadership*, *45*(1), 37–43. https://doi.org/10.1108/SL-12-2016-0085

KPMG (2019). 2019 Change readiness index tool. https://home.kpmg/xx/en/home/insights/2019/06/2019-change-readiness-index-tool.html?countryCode=JO

Kumar, R. (2019). Research methodology: A step-by-step guide for beginners (5th ed.). Sage Publications Limited.

LoBiondo-Wood, G., Haber, J., Cameron, C., & Singh, M. (2014). *Nursing research in Canada: Methods, critical appraisal, and utilization*. Elsevier Health Sciences.

Luthans, F. (2015). *Organizational behavior: An Evidence Based Approach* (12th ed.). McGraw-Hill/Irwin. https://bdpad.files.wordpress.com/2015/05/fred-luthans-organizational-behavior- -an-evidence-based-approach-twelfth-edition-mcgraw-hill irwin-2010.pdf

Lyons, S., & Kuron, L. (2014). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organizational Behavior*, *35*(S1), S139–S157. https://doi.org/10.1002/job.1913

Lyons, S. T., Ng, E. S., & Schweitzer, L. (2014). Changing demographics and the shifting nature of careers: Implications for research and human resource development. *Human Resource Development Review*, 13(2), 181–206. https://doi.org/10.1177%2F1534484314524201

Lyons, S. T., Schweitzer, L., & Ng, E. S. (2015a). Resilience in the modern career. *Career Development International*, 20(4), 363–383. https://doi.org/10.1108/CDI-02-2015-0024

Lyons, S. T., Schweitzer, L., & Ng, E. S. (2015b). How have careers changed? An investigation of changing career patterns across four generations. *Journal of Managerial Psychology*, *30*(1), 8–21. https://doi.org/10.1108/JMP-07-2014-0210

Lysova, E. I., Jansen, P. G., Khapova, S. N., Plomp, J., & Tims, M. (2018). Examining calling as a double-edged sword for employability. *Journal of Vocational Behavior*, *104*, 261–272. https://doi.org/10.1016/j.jvb.2017.11.006

Makridakis, S. (2017). The forthcoming artificial intelligence (AI) revolution: Its impact on society and firms. *Futures*, *90*, 46–60. https://doi.org/10.1016/j.futures.2017.03.006

Manyika, J., Lund, S., Bughin, J., Robinson, K., Mischke, J., & Mahajan, D. (2016, October). *Independent work: Choice, necessity, and the gig economy*. McKinsey & Company. https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Employment%20and%2 0Growth/Independent%20work%20Choice%20necessity%20and%20the%20gig%20economy/Independent-Work-Choice-necessity-and-the-gig-economy-Executive-Summary.ashx

Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., Ko, R. & Sanghvi, S. (2017, December). *Jobs lost, jobs gained: Workforce transitions in a time of automation*. McKinsey. https://www.mckinsey.com/~/media/mckinsey/featured%20insights/Future%20of%20Organiz

ations/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx

Manyika, J., Lund, S., Robinson, K., Valentino, J., & Dobbs, R. (2015, June). *A labor market that works: Connecting talent with opportunity in the digital age.* McKinsey Global Institute. https://www.mckinsey.com/~/media/mckinsey/featured%20insights/Employment%20and%20 Growth/Connecting%20talent%20with%20opportunity%20in%20the%20digital%20age/MGI %20Online%20talent_A_Labor_Market_That_Works_Executive_%20summary_June%2020 15.ashx

Maree, J. G. K. (2017). Opinion piece: Using career counselling to address work-related challenges by promoting career resilience, career adaptability, and employability. *South African Journal of Education*, 37(4), 1-5. https://doi.org/10.15700/saje.v37n4opinionpiece

Mencl, J., & Lester, S. W. (2014). More alike than different: What generations value and how the values affect employee workplace perceptions. *Journal of Leadership & Organizational Studies*, *21*(3), 257–272. https://doi.org/10.1177%2F1548051814529825

Mensi-Klarbach, H., & Risberg, A. (2019). *Diversity in Organizations: Concepts and Practices* (2nd ed.). Macmillan International Higher Education.

Michell, J. (2003). The quantitative imperative positivism, naive realism and the place of qualitative methods in psychology. *Theory & Psychology*, *13*(1), 5–31. https://doi.org/10.1177%2F0959354303013001758

Mishra, P., & McDonald, K. (2017). Career resilience: An integrated review of the empirical literature. *Human Resource Development Review*, *16*(3), 207–234. https://doi.org/10.1177%2F1534484317719622

Munley, P. H. (1977). Erikson's theory of psychosocial development and career development. *Journal of Vocational Behavior*, *10*(3), 261–269. https://doi.org/10.1016/0001-8791(77)90062-8

Nagy, N., Froidevaux, A., & Hirschi, A. (2018). *Lifespan perspectives on careers and career development*. In B. Baltes, C. Rudolph, & H. Zache (Eds.), Work across *the lifespan* (pp. 235–259). Academic Press. https://doi.org/10.1016/B978-0-12-812756-8.00010-4

Nikitkov, A., & Sainty, B. (2014). The role of social media in influencing career success. International Journal of Accounting & Information Management, 22(4), 273–294. https://doi.org/10.1108/IJAIM-02-2014-0009

O'Byrne, A. (2018). Turning expatriates' cultural intelligence into strategic advantage. Strategic HR Review 17(3), 131-136. https://doi.org/10.1108/SHR-03-2018-0019

Obermeyer, Z., & Emanuel, E. J. (2016). Predicting the future—big data, machine learning, and clinical medicine. *The New England Journal of Medicine*, *375*(13), 1216-1219. https://doi.org/10.1056/NEJMp1606181

Okay-Somerville, B., & Scholarios, D. (2013). Ease of entry into the graduate labour market: Perceived employability of graduates from non-professional degree courses. Abstract from 16th European Congress of Work and Organisational Psychology, Munster, Germany.

Oosthuizen, R. M. (2019). Smart Technology, Artificial Intelligence, Robotics and Algorithms (STARA): Employees' Perceptions and Wellbeing in Future Workplaces. In *Theory, Research and Dynamics of Career Wellbeing* (pp. 17-40). Springer, Cham.

Park, Y. (2018). Empirical investigation on the predictors of career satisfaction. *Industrial and Commercial Training*, *50*(4), 165–171. https://doi.org/10.1108/ICT-03-2018-0032

Perrin, A. (2015, October 8). *Social media usage*. Pew Research Center, https://www.secretintelligenceservice.org/wp-content/uploads/2016/02/PI_2015-10-08_Social-Networking-Usage-2005-2015_FINAL.pdf

Peters, M. A. (2017). Technological unemployment: Educating for the fourth industrial revolution. *Journal of Self-Governance and Management Economics*, *5*(1), 25-33. https://doi.org/10.1080/00131857.2016.1177412

Pieterse, J. N. (2015). Globalization and culture: Global mélange. Rowman & Littlefield.

Potgieter, I. L., Coetzee, M., & Ferreira, N. (2018). The role of career concerns and workplace friendship in the job embeddedness-retention practices satisfaction link. *SA Journal of Industrial Psychology*, *44*(1), 1–9. https://doi.org/ 10.4102/sajip.v44i0.1519

Praskova, A., Creed, P. A., & Hood, M. (2015). Self-regulatory processes mediating between career calling and perceived employability and life satisfaction in emerging adults. *Journal of Career Development*, *42*(2), 86–101. https://doi.org/10.1177%2F0894845314541517

Quak, H., Nesterova, N., & van Rooijen, T. (2016). Possibilities and barriers for using electric-powered vehicles in city logistics practice. *Transportation Research Procedia*, *12*, 157–169. https://doi.org/10.1016/j.trpro.2016.02.055

Rabbi, F., Ahad, N., Kousar, T., & Ali, T. (2015). Talent management as a source of competitive advantage. *Journal of Asian Business Strategy*, *5*(9), 208-214.

Roberson, Q. M. (2019). Diversity in the workplace: A review, synthesis, and future research agenda. *Annual Review of Organizational Psychology and Organizational Behavior*, *6*, 69-88. https://doi.org/10.1146/annurev-orgpsych-012218-015243

Rodrigues, R., Butler, C. L., & Guest, D. (2019). Antecedents of protean and boundaryless career orientations: The role of core self-evaluations, perceived employability and social capital. *Journal of Vocational Behavior*, *110*, 1-11. https://doi.org/10.1016/j.jvb.2018.11.003

Salkind, N. J. (2014). Exploring research (8th ed.). Pearson Prentice Hall.

Sathyabama, K. (2017). True alarm using artificial intelligence and internet of things. *International Journal of Creative Research Thoughts (IJCRT)*, *5*(4), 2688–2693.

Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown (Ed.), *Career choice and development* (pp. 149–205). Wiley.

Savickas, M. L. (2005). The theory and practice of career construction, In Lent, R. W. & Brown, S. D. (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed.). John Wiley & Sons.

Savickas, M. L. (2011). New questions for vocational psychology: premises, paradigms, and practices. *Journal of Career Assessment,* 19(3), 251–258. https://doi.org/10.1177%2F1069072710395532

Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown, & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42–70) (2nd ed.). Wiley.

Savickas M. L. (2015). Career counselling paradigms: Guiding, developing, and designing. In P. J. Hartung, M. L. Savickas, & W. B. Walsh (Eds.). *The APA handbook of career intervention* (Vol. 1). American Psychological Association. https://doi.org/10.1037/14438-008

Savickas, M. L. (2019). The world of work and career interventions. In M. L. Savickas, *Theories of psychotherapy series. Career counseling* (pp. 3–14). American Psychological Association. http://dx.doi.org/10.1037/0000105-001

Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior, 80*(3), 661–673. http://dx.doi.org/10.1016/j.jvb.2012.01.012

Schmidt, E., & Cohen, J. (2013). The new digital age: Reshaping the future of people, nations and business. UK: Hachette.

Schreuder, D., & Coetzee, M. (2011). Careers an organisational perspective (4th ed.). Juta.

Schwab, K. (2017a). *The global competitiveness report 2017–2018*. World Economic Forum. http://www3.weforum.org/docs/GCR2017-

2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf

Schwab, K. (2017b). *The global human capital report 2017*. World Economic Forum. https://www.weforum.org/reports/the-global-human-capital-report-2017

Schwab, K. (2017c). The fourth industrial revolution. Crown Business.

Schwab, K. (2018a). *Towards a reskilling revolution: A future of jobs for all.* World Economic Forum. http://www3.weforum.org/docs/WEF FOW Reskilling Revolution.pdf

Schwab, K. (2018b). *The global risks report 2018*. World Economic Forum. http://www3.weforum.org/docs/WEF_GRR18_Report.pdf

Sedgwick, P. (2014). Cross sectional studies: Advantages and disadvantages. *British Medical Journal*, *348*, 2276. https://doi.org/10.1136/bmj.g2276

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach* (7th ed.). John Wiley & Sons.

Sharf, R. S. (2010). Applying career development theory to counselling (5th ed.). Cengage Learning.

Shifrinson, J. (2020). The rise of China, balance of power theory and US national security: Reasons for optimism?. *Journal of Strategic Studies*, *43*(2), 175-216. https://doi.org/10.1080/01402390.2018.1558056

Shook, E., & Knickrehm, M. (2018). *Reworking the revolution*. Accenture. https://www.accenture.com/_acnmedia/pdf-69/accenture-reworking-the-revolution-jan-2018-pov.pdf

Shuttleworth, M. (2009, April 26). *Internal consistency reliability*. Explorable.com https://explorable.com/internal-consistency-reliability

Siddiqui, S., & Singh, T. (2016). Social media its impact with positive and negative aspects. *International Journal of Computer Applications Technology and Research*, *5*(2), 71–75.

Silva, D., & Coelho, A. (2019). The impact of emotional intelligence on creativity, the mediating role of worker attitudes and the moderating effects of individual success. *Journal of Management & Organization*, *25*(2), 284-302. https://doi.org/10.1017/jmo.2018.60

Sözbilir, F. (2018). The interaction between social capital, creativity and efficiency in organizations. *Thinking Skills and Creativity*, *27*, 92–100. https://doi.org/10.1016/j.tsc.2017.12.006

Spector, P. E. (2019). Do not cross me: Optimizing the use of cross-sectional designs. *Journal of Business and Psychology*, 2, 1–14. https://doi.org/10.1007/s10869-018-09613-8

Spurk, D., Keller, A. C., & Hirschi, A. (2016). Do bad guys get ahead or fall behind? Relationships of the dark triad of personality with objective and subjective career success.

Social Psychological and Personality Science, 7(2), 113–121. https://doi.org/ 10.1177%2F1948550615609735

Stanford, N. (2018). Organization design: The practitioner's guide (3rd ed.). Routledge.

Störmer, E., Patscha, C., Prendergast, J., Daheim, C., Rhisiart, M., Glover, P., & Beck, H. (2014, February). *The future of work: jobs and skills in 2030*. UK Commission for Employment and Skills. https://www.oitcinterfor.org/sites/default/files/file_publicacion/thefutureofwork.pdf

Super, D. E. (1957). The psychology of careers. Harper and Row.

Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2nd ed.), (pp. 197–261). Jossey-Bass.

Symington, N. (2012). *Investigating graduate employability and psychological career resources*. (Unpublished master's dissertation). University of Pretoria.

Takawira, N. (2018) Constructing a psychosocial profile for enhancing the career success of South African professional women. University of South Africa. https://doi.org/10.1080/14330237.2019.1625598

Terre Blanche, M., Durrheim, K., & Painter, D. (2006). *Research in practice. Applied methods for the social science* (2nd ed.). University of Cape Town Press.

Tladinyane, R. T. (2012). *Psychological career resources, work engagement and organisational commitment foci: A psychological profile for staff retention*. University of South Africa.

Tladinyane, R., Coetzee, M., & Masenge, A. (2013). Psychological career meta-capacities in relation to employees' retention-related dispositions. *Southern African Business Review*, 17(2), 140-163.

Tolentino, L. R., Garcia, P. R. J. M., Lu, V. N., Restubog, S. L. D., Bordia, P., & Plewa, C. (2014). Career adaptation: The relation of adaptability to goal orientation, proactive personality, and career optimism. *Journal of Vocational Behavior*, *84*(1), 39–48. https://doi.org/10.1016/j.jvb.2013.11.004

Tomczak-Horyń, K., & Knosala, R. (2017). Evaluation of employees' creativity as a stimulator of company development. *Procedia Engineering*, *182*, 709–716. https://doi.org/10.1016/j.proeng.2017.03.184

Tomlinson, J., Baird, M., Berg, P., & Cooper, R. (2018). Flexible careers across the life course: Advancing theory, research and practice. *Human Relations*, 71(1), 4–22. https://doi.org/10.1177%2F0018726717733313

Trevor-Roberts, E., Parker, P., & Sandberg, J. (2018). How uncertainty affects career behaviour: A narrative approach. *Australian Journal of Management, 44*(1), 50-69. https://doi.org/10.1177%2F0312896218775801

Tuli, F. (2011). The basis of distinction between qualitative and quantitative research in social science: Reflection on ontological, epistemological and methodological perspectives. *Ethiopian Journal of Education and Sciences*, *6*(1), 97-108. http://dx.doi.org/10.4314/ejesc.v6i1.65384

Valenduc, G., & Vendramin, P. (2016, March). *Work in the digital economy: Sorting the old from the new.* European Trade Union Institute. http://ftunamur.org/fichiers/Work in the digital economy-ETUI2016-3-EN.pdf

Vasudeva, P., LaVelle, K., Gilbert, M., & Childs, G. (2017). *Getting it right with digital talent*. Accenture. https://www.accenture.com/_acnmedia/accenture/designlogic/16-3360/documents/accenture-2017-top-10-challenges-05-digital-talent.pdf

Venter, J., Coetzee, M., & Basson, J. S. (2013). Psychological career resources and work engagement of early career consulting staff. *Journal of Psychology in Africa*, *23*(3), 431–438. https://doi.org/10.1080/14330237.2013.10820648

Walliman, N. (2017). Research methods: The basics (2nd ed.). Routledge. https://doi.org/10.4324/9781315529011

Weill, P., & Woerner, S. L. (2018). Is your company ready for a digital future? *MIT Sloan Management Review*, *59*(2), 21–25.

Wiernik, B. M., & Kostal, J. W. (2019). Protean and boundaryless career orientations: A critical review and meta-analysis. *Journal of counseling psychology*, *66*(3), 280-307. https://doi.org/10.1037/cou0000324

World Bank. (2018). South Africa Economic Update.

http://pubdocs.worldbank.org/en/798731523331698204/South-Africa-Economic-Update-April-2018.pdf

Wójcik, P. (2018). Shortage of talents–a challenge for modern organizations. *International Journal of Synergy and Research*, 6, 123-135. http://dx.doi.org/10.17951/ijsr.2017.0.6.123

Wright, K. B. (2005). Researching internet -based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer -Mediated Communication*, 10(3). https://doi.org/10.1111/j.1083-6101.2005.tb00259.x

Xie, B., Xia, M., Xin, X., & Zhou, W. (2016). Linking calling to work engagement and subjective career success: The perspective of career construction theory. *Journal of Vocational Behavior*, *94*, 70–78. https://doi.org/10.1016/j.jvb.2016.02.011

Xu, M., David, J. M., & Kim, S. H. (2018). The fourth industrial revolution: Opportunities and challenges. *International Journal of Financial Research*, *9*(2), 90-95. https://doi.org/10.5430/ijfr.v9n2p90

Alexa Barnby Language Specialist

Editing, copywriting, indexing, formatting, translation

BA Hons Translation Studies; APEd (SATI) Accredited Professional Text Editor, SATI

Mobile: 071 872 1334 Tel: 012 361 6347

alexabarnby@gmail.com

13 January 2020

Manuty

To whom it may concern

This is to certify that I, Alexa Kirsten Barnby, an English editor accredited by the South African Translators' Institute, have edited the master's dissertation titled "The association between psychosocial career preoccupations and psychological career resources" by Ashlin Govender.

The onus is on the author, however, to make the changes and address the comments made.

Annexure B: Ethics clearance certificate



UNISA CEMS/IOP RESEARCH ETHICS REVIEW COMMITTEE

26 July 2018

Dear Mr Ashlin Govender,

Decision: Ethics Approval from 26 July 2018 to 26 July 2021 NHREC Registration # : (if applicable)
ERC Reference # : 2018_CEMS/IOP_ 026

Name : Mr Ashlin Govender

Student #: 49972103

Staff #: N/A

Researcher(s): Name: Mr Ashlin Govender

Address: 222 Bankhead Road, Hillary, 4094

E-mail address, telephone: Govenderashlin01@gmail.com, +27794712549

Supervisor (s): Prof Melinde Coetzee

E-mail address, telephone: coetzm1@unisa.ac.za, (012) 429-8204

The association between psychosocial career preoccupations and psychological career resources in a sample of South African employees.

Qualification: Post graduate degree

Thank you for the application for research ethics clearance by the Unisa CEMS/IOP Research Ethics Review Committee for the above mentioned research. Ethics approval is granted for **Three** years.

The **low risk application** was **reviewed** by the CEMS/IOP Research Ethics Review Committee on the 20th July 2018 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision was approved on 20th July 2018.

The proposed research may now commence with the provisions that:

- 1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
- Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Unisa CEMS/IOP Research Ethics Review Committee.



University of South Africa Preller Street, Muckleneuk Ridge, City of Tshwane PO Box 392 UNISA 0003 South Africa Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

- The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
- 4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
- 5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
- 6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
- No field work activities may continue after the expiry date (26th July 2021).
 Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number 2018_CEMS/IOP_026 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Signature

Chair of IOP ERC

E-mail: vnieka2@unisa.ac.za

Diekerk

Tel: (012) 429-8231

Executive Dean : CEMS

E-mail: mogalmt@unisa.ac.za

Tel: (012) 429-4805

URERC 25.04.17 - Decision template (V2) - Approve

University of South Africa Preller Street. Muckleneuk Ridge. City of Tshwane PO Box 392 UNISA 0003 South Africa Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150 www.unisa.ac.za