



**Person-Environment Fit, Authentic
Leadership, Psychological
Meaningfulness and Individual Work
Performance of Young Professionals in
South Africa**

TP Jayamaha

 **orcid.org 0000-0002-6300-6966**

Mini-dissertation accepted in fulfilment of the requirements for the degree *Master of Commerce in Industrial Psychology* at the North-West University

Supervisor: Dr J Bosman

Graduation: July 2020

Student number: 21683794

COMMENTS

The reader is reminded of the following:

- The editorial style in the first and last chapters of this mini-dissertation follows the format prescribed by the Programme in Industrial Psychology of the North-West University.
- The references and page numbers in this mini-dissertation follow the format prescribed by the Publication Manual (6th edition) of the American Psychological Association (APA). This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University to use the APA referencing style in all scientific documents.
- The mini-dissertation is submitted in the form of a research article. The editorial style as specified by the *South African Journal of Industrial Psychology* (which agrees with the APA style used) is used in Chapter 2.

DECLARATION

I, Tanusha Prasanthi Jayamaha, hereby declare that “**Person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa**” is my own work and that the views and opinions expressed in this mini-dissertation are my own and those of the authors as referenced both in the text and in the reference lists.

I further declare that this work will not be submitted to any other academic institution for qualification purposes.

Full name: Tanusha Prasanthi Jayamaha

Signed:



Date: March 2020

DECLARATION OF LANGUAGE EDITING

I hereby declare that I was responsible for the language editing of the mini-dissertation *Person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa* submitted by Tanusha Prasanthi Jayamaha.

Full name: Dr Elsabé Diedericks

Signed:  The signature consists of a stylized 'E' and 'D' in a circle, followed by the name 'iedericks' in a cursive script.

Date: March 2020

**In loving memory of my friend, my darling
Stephanie Tanita Hickey (1990 – 2018) and baby Nixon Mann.
You are always in my heart, mind and soul and will always be a part of who I am.**

ACKNOWLEDGEMENTS

- To my parents, Nimal and Devika, who have come a long way from their home so I could have a better life here. Thank you for your continuous support, love, and care, in every essence, in not only my Master's, but for shaping me into who and where I am today. To my sister, Rushani, thank you for your encouragement and for always pushing me to do better.
- Jessica Gutierrez, thank you, without your guidance, strength, the late nights spent together and continuous motivation even when it seemed impossible, I would not be here. Thank you for creating a space for me to do my research. Thank you for pushing me. I am so grateful that our paths crossed.
- Dr Jacqueline Bosman, my supervisor, thank you for guiding me through this entire process, for your sound advice, your patience and for your time. I am eternally grateful to you. This dissertation could not be done without you.
- Dr Elsabe Diedericks, thank you for your professional language editing and time.
- Mrs Elizabeth Bothma, for your never-ending support and tissues whenever I needed it during the statistical analyses. Thank you for trying your best to help me understand your passion; you did a great job and I am so thankful. "Third time's a charm!"
- Oreneetse Botshelo, you have been my light throughout it all. Thank you, Popae. For everything.
- To my friends, near, far and wide, Ednadine Ferreira, Carlyn Carolissen, Ayodimeji "Dee" Biobaku, and Brittany Straton, thank you for believing in me, pushing me and allowing me to put myself first throughout this journey. Brittany, thank you for dropping everything to help me out when the document had a mind of its own, you know what I mean. Budlelwane Dalasile, you made Master's so much lighter; thank you for the laughter and motivation – it is what it is, you're the best!
- To all my participants, thank you for the time taken to complete the questionnaires and for contributing to this research.

TABLE OF CONTENTS

List of Tables	vii
List of Figures	viii
Summary	ix
CHAPTER 1: INTRODUCTION	1
1.1 Problem Statement	1
1.2 Literature Review	9
1.3 Research Questions	14
1.4 Research Objectives	15
1.4.1 General Objectives	15
1.4.2 Specific Objectives	15
1.5 Research Design	16
1.5.1 Research Approach	16
1.5.2 Research Method	16
1.5.2.1 Phase 1: Literature Review	16
1.5.2.2 Phase 2: Empirical Study	16
1.5.3 Participants	16
1.5.4 Measuring Instruments	17
1.5.5 Research Procedure	19
1.5.6 Statistical Analysis	19
1.6 Ethical Considerations	20

TABLE OF CONTENTS (CONTINUES)

1.7 Contributions of the Study	21
1.7.1 Expected Contributions for the Individual	21
1.7.2 Expected Contributions to the Organisation	21
1.7.3 Expected Contribution to the Industrial/Organisation Psychology Literature	22
1.8 Chapter Division	21
References	22
CHAPTER 2: RESEARCH ARTICLE	33
References	67
CHAPTER 3: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	
3.1 Conclusion from Literature and Empirical Results	74
3.2 Limitations and Recommendations for Future Research	80
3.3 Recommendations for Practice	81
3.4 Chapter Summary	83
References	84

LIST OF FIGURES

Figure	Description	Page
Chapter 1		
Figure 1	The conceptualised model	8
Chapter 2		
Figure 1	The conceptual framework	47
Figure 2	The structural model	60

LIST OF TABLES

Table	Description	Page
Table 1a	Demographic Characteristics of the Participants (n = 350)	49
Table 1b	Employment Characteristics of the Participants (n = 350)	50
Table 2	Descriptive Statistics and Reliability Coefficients	55
Table 3	Fit Statistics of Initial Possible Measurement Models	57
Table 4	Difference Testing for Changes in Chi-Square in Competing Measurement Models	58
Table 5	Initial Framework Fit Indices and Standardised Path Coefficients	59
Table 6	Difference Testing for Changes in Chi-square in Structural Models	60
Table 7	Indirect Effects Through Positive Meaning	62

SUMMARY

Title: Person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa

Key terms: Person-environment fit, authentic leadership, psychological meaningfulness, individual work performance, young professionals, Millennials

In the current VUCA (volatile, uncertain, complex and ambiguous) world of work, which poses different challenges, a new approach to understanding young professionals and what encourages them to perform within this work context is required. Young professionals are known to constantly change jobs, which could be due to organisations not understanding the needs of this generation.

The objective of this research was to investigate the relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance among young professionals (Millennials) within South Africa. The study was cross-sectional in nature, with a nonprobability convenient sample ($n = 350$). The measuring instruments utilised were the Perceived Fit Scale (PFS), Authentic Leadership Inventory (ALI), Work and Meaning Inventory (WAMI) and the three-factor Individual Work Performance Questionnaire (IWPQ). Correlations were tested to determine the relationships between each of the constructs; confirmatory factor analysis determined construct validity of the instruments; and the structural model determined regression between the latent variables and possible indirect effects.

No indirect effects were found between person-environment fit through psychological meaningfulness (positive meaning) on individual work performance, as well as with authentic leadership through psychological meaningfulness (positive meaning) on individual work performance. However, direct relationships were found between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance. These findings suggest that managers and human resource professionals within organisations should consider developing interventions focused on the development of person-environment fit, authentic leadership and psychological meaningfulness (positive meaning) in order to improve young professionals' performance. Recommendations were made for practice and future research.

CHAPTER ONE

INTRODUCTION

This mini-dissertation discussed the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance among young professionals (Millennials) within South Africa. The study further investigates whether authentic leadership has an indirect effect on individual work performance through psychological meaningfulness, as well as whether person-environment fit, has an indirect effect on individual work performance through psychological meaningfulness.

The purpose of this chapter is to explore the problem statement, general and specific objectives. The research design, data collection and analysis methods are described, and the division of the chapters are provided.

1.1 Problem Statement

Until recently, organisations were mostly comprised of three generations of professionals, which included the Silent Generation (born between 1925 and 1942), the Baby Boomers (born between 1943 and 1960) and Generation X (born between 1961 and 1981) (Graybill, 2014; Strauss & Howe, 1991). Millennials (born between 1982 and 2000) are the more recent generation to enter organisations (Heyns & Kerr, 2018; Howe & Strauss, 2000; Murphy & Louer, 2018). Over the last few years, there have been a variety of trends that are leading towards changing workforce demographics and organisational change, including technological evolution and educational challenges (Mourino, 2017). Changing workforce demographics include the continued influx of Millennial employees (Lancaster & Stillman, 2010), together with retirement of the Baby Boomers.

These changes in workforce demographics create both challenges and opportunities for their leaders (Blancero, Mourino-Ruiz, & Padilla, 2018; Butler, 2018; Mourino, 2017). Leaders are faced with challenges such as reduced engagement levels, change resistant cultures, ineffective performance management, failed change initiatives and a dynamic multi-generational workforce (Sullivan, 2018). Millennials are predicted to make up the majority of the workforce

by 2025 and are therefore an important facet in the working population (Paur, Costa, & Germain, 2018).

Millennials have started to enter organisations and are known to have certain characteristics, such as being highly educated, and consequently more opinionated. They are proficient in the use of modern technology, and have a high drive to attain and accomplish goals. They are also known to be highly motivated within a team and are continuously thinking of business sustainability (Martins & Martins, 2014). Millennials from South Africa are impacted by a labour market that is challenging to gain entry to, in addition to increasing unemployment, which have generated a disaffected and angry generation (Martins & Martins, 2014). In a survey conducted by Deloitte in 2016, 76% of Millennials in South Africa expected to leave their employing organisation at that time within 5 years (Deloitte, 2016). Mokoena (2012) stated as far back as 2012, that in South Africa alone, 75% of graduates within the Millennial age group had left the organisations of their first entry level job within a period of three years, with Adkins (2016) noting that Millennials have also built a reputation of job-hopping or moving from one organisation to another, resulting in organisations losing valuable human resources. A reason behind this is that Millennials require a different set of leadership styles, values and core experiences (Anderson, Baur, Griffith, & Buckley, 2017). Lancaster and Stillman (2002) postulate that different generations are moulded by various standards, values and policies and may not be well matched with generations that succeed them. Organisations that endeavour to understand and connect generational gaps have an advantage in employee retention (Lancaster & Stillman, 2002). A suggestion made in literature is that Millennials are the generation that is least committed to work and to their employers (Kilber, Barclay, & Ohmer, 2014).

According to Hester (2013), turnover costs for an organisation can be as high as 250% of an employee's annual salary. These turnover costs can be distressing to organisations based on the increase of Millennial employees in the workplace, and their inclination to leave (Nolan, 2015). The inconsistency and risk-taking nature of this generation of employees can negatively affect organisations based on the impact of the turnover costs due to Millennials inclination to leave. (Hester, 2013). Therefore, the high turnover rates that the majority of organisations experience due to Millennials' job-hopping should be taken into consideration (da Silva, Trevisan, Veloso & Dutra, 2016). Additionally, it is anticipated that the demand for Millennials will increase in the job market, as they are the newest group of job entrants due to

their chronological age now. It is also important to consider factors such as the Baby Boomer retirement and the reduced numbers of Generation X that may not be able to replace the reduction of Baby Boomers (Kilber, et al., 2014). Millennials were born into a technological era and often understand more about technological advancements than their teachers and parents (Meier & Crocker, 2010). Managers are presented with the challenge to train and motivate Millennials in order to develop their strengths to the benefit of the organisation (D'Netto & Ahmed, 2012). Millennials are eager to work hard, however they do not centre their lives around their work (Anitha & Aruna, 2016). They seek motivation from rewards as well as their work (Anitha & Aruna, 2016). Bedingfield (2005) and D'Netto and Ahmed (2012) postulated that organisations need to be aware of these employees' high ambition levels and create roles that are challenging and complex. Friedell, Puskala, Smith, and Villa (2012) stress the importance of understanding the challenges associated with the lack of knowledge of the necessities Millennials require in the workplace, which may result in difficulty of retaining them. Millennials assign importance to the capacity to continuously learn and improve their skill set (Ng, Schweitzer, & Lyons, 2010). Millennials are driven by a need to enhance professional abilities in order to remain competitive (Sayers, 2007). Organisations will be more successful in attracting and retaining Millennials if they accommodate a comprehensive array of learning possibilities such as mentoring, coaching, on the job training, job rotation and opportunity to study (D'Netto & Ahmed, 2012). Generally, the views of Baby Boomer and Generation X supervisors, which both have different values than Millennials, mould the requirements and procedures that surround hiring decisions, workplace behaviours, job tasks, and promotional practices (Friedell, et al., 2012). Should Millennials' expectations differ from the organisation's workplace culture, their performance, loyalty to and satisfaction with the organisation suffer (Friedell, et al., 2012; Nolan, 2015).

Person-environment fit theory broadly specifies that when individuals and their working environments are in harmony, it will result in positive work outcomes. It is said to influence employees' job choices as well as employee selection decisions. Essentially, compatibility suggests that individuals' characteristics and work environment are well matched, allowing for positive job attitudes and habits (Giauque, Resenterra, & Siggen, 2014; Kristof-Brown & Billsbery, 2013). Employees have been found to prefer organisations that they feel they share similar values with (Kristof-Brown & Billsbery, 2013). Organisations base their selection and hiring decisions on the perceived congruity between their organisational culture and employees' values (Kristof-Brown & Billsbery, 2013). Finally, in case of a mismatch or misfit,

either the employee quits voluntarily or organisations ask them to leave (Queiri, Yusoff, & Dwaikat, 2014).

It is additionally articulated that newly employed professionals often quit their careers early (Queiri, Yusoff, & Dwaikat, 2014). Research conducted by Giauque, Resenterra, and Siggen (2014) and Queiri, Yusoff, and Dwaikat (2014) demonstrated positive associations between person-environment fit and positive job attitudes such as job satisfaction, commitment and reduced intention to quit. Giauque, Resenterra, and Siggen (2014) also noted that the person-environment theory has contributed to explaining behaviours, such as job performance and organisational citizenship and that the practicality of person-environment theory has been used to evaluate the level of individual psychological strain and wellbeing in the organisation (Giauque, Resenterra, & Siggen, 2014; Kristof-Brown & Billsberry, 2013). From research conducted, person-environment fit has a positive relationship with employee outcomes (Verquer, Beehr, & Wagner, 2003) which can be classified into three main areas, namely attitude, mental and physical respectively. It similarly has a positive relationship within job and contextual performance (Dawis & Lofquist, 1984; Edwards, Caplan, & Harrison, 1998). This consistency in research findings that have established relationships between person-environment fit and job attitudes, behaviours and decisions, suggest that person-environment fit matters in the field of organisational behaviour (Queiri, Yusoff, & Dwaikat, 2014). It is pivotal to take into consideration the numerous problems that can occur when incorrect matching or the wrong person-job match is done; both for the individual and the organisation alike (Kilber, et al., 2014; Naim & Lenka, 2018; Pema-Mistry, 2014). At an individual level, the wrong person-job match can result in the individual not performing optimally; thus, resulting in low productivity for the organisation, job dissatisfaction, higher absenteeism rates, possible disciplinary cases and higher turnover or reduced retention (Pema-Mistry, 2014). A study conducted by Patalano (2008) that investigated the variances between Generation X and Millennials, found that Millennials have lower organisational commitment compared to Generation X. Although there is lacking literature to support these claims, a possible explanation for this can be due to the Millennials' work values and a work environment that fails to meet their generation-specific needs (Bednarska, 2017; Campione, 2014). Therefore, exploring person-environment fit, which could be associated with generation-specific work values, may be a contributing factor to the lower organisational commitment that is said to characterise the Millennials. A study by Lyons and Kuron (2014) suggests that values and attitudes have shifted across generations, which supports observations that Millennials are

different compared to preceding generations. Their findings additionally support Twenge, Campbell, Hoffman, and Lance's (2010) study, which demonstrated considerable differentiation in work values between Baby Boomers and the millennial generation. Examples of what Millennials value involve the need for leisure and work-life balance, individualism, and management support (Ng & Johnson, 2015). Recent literature and media have engaged in negative speculation regarding Millennials' work attitudes (how individuals feel about their work) and work values (what individuals want from work and their work preferences). Each generation comprises of various needs, characteristics and values that affect the workplace (Martins & Martins, 2014).

Research on Baby Boomers has shown that this generation has a strong internalised work ethic and a career-focused approach to life, which results in the perception that they are ambitious employees who are conscious about status (Hoole & Bonnema, 2015). Baby Boomers are known to prefer job security and stability, a hierarchal job structure and favour a leadership style that is reliable and congruent with the work environment (Ballone, 2007; Heyns & Kerr, 2018). Baby Boomers believe in hard work and personal sacrifice and are motivated by salary increases and job promotions (Ballone, 2007). In contrast, Generation X members value work-life balance (Hoole & Bonnema, 2015) and are likely to decline a promotion if they feel it will impinge on their home life. It is expected that they are included in all facets of the business and are to be provided with repeated career growth opportunities (Ballone, 2007; Heyns & Kerr, 2018). Millennials, viewed as the most confident of the generational groups due to their upbringing (Heyns & Kerr, 2018), are distinguished by their expectation to be acknowledged in the same way as their peers and to be included in a work environment that fosters collaboration and diversity (Hoole & Bonnema, 2015). Millennials seek skill advancement and challenges provided by different opportunities (Hart, 2006; Heyns & Kerr, 2018).

It is likely that Baby Boomers often perceive the younger generation to be lazy due to their preference for working from home, flexible hours, and virtual offices (Glass, 2007). Understanding the generational differences between work values and work environment as well as the outcomes of person-environment fit are important building blocks for efficiently attracting, retaining and training not only the newest generation, but also those generations already in the organisation.

Awareness of what motivates and keeps different generations satisfied can assist managers in retaining top talent (Martins & Martins, 2014). According to the survey conducted by the Deloitte Millennial Survey (2016), an observed lack of leadership-skill development and feelings of being disregarded are exacerbated by issues related to work-life balance, a need for flexibility and conflicting values. Millennials are found to value unexpected rewards, authenticity, learning opportunities, recognition, feedback and regular interaction with their leaders or supervisors (Nel, 2011). This could imply that a positive type of leadership style where Millennial values are met could assist in retaining them. It is argued that a leader or manager's authenticity in the organisation develops effective interpersonal work associations, improve team functioning and productivity and is linked to the employee's psychological wellbeing and perceptions of the organisation (Lee, Chiang & Kuo, 2019; Liu, Fuller, Hester, Bennett, & Dickerson, 2018). An authentic leader is someone who is self-aware and is guided by a set of values. Authentic leaders demonstrate honesty and integrity through transparency in their actions, which leads to balanced and fair decisions for both themselves and their followers (Walker & Walker, 2011).

Authentic leadership is described as a form of leader behaviour that enhances employee engagement and ethical work behaviour (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Although the concept of authentic leadership is somewhat new, several empirical studies have linked authentic leadership with positive work outcomes and attitudes including job satisfaction, organisational commitment, work engagement and meaningfulness (Walumbwa et al., 2008; Walumbwa et al., 2010; Walumbwa et al., 2011).

Authentic leaders are true to their moral and ethical values, strive to achieve transparent and genuine relationships and thereby promote their followers' development by emphasising employees' talents and strengths as well as liberating their potential and emphasising their growth (Gardner & Schermerhorn, 2004; Luthans & Avolio, 2003); thus, improving employee performance (Clapp-Smith, Vogelgesang, & Avey, 2009; Gardner et al., 2005; Ilies et al., 2005; Kernis, 2003; Ribeiro, Duarte, & Filipe, 2018). According to Walumbwa et al. (2011), authentic leadership pushes employee performance through higher trust and identification with the leaders in question.

Koopmans (2014) explains individual work performance as practices or behaviours that are significant to the goals of the organisation, focusing mainly on behaviours and actions of employees rather than the results of these actions. Within organisational psychology, individual

performance is one of the fundamental outcomes that organisations try to predict (Sonnentag, 2002). Koopmans et al. (2016) developed a heuristic framework of individual work performance consisting of three dimensions, namely task performance, contextual performance and counterproductive work behaviour. Task performance is defined as the ability to perform the core or central tasks of the job (Koopmans et al., 2016; Widyastuti & Hidayat, 2018) and contextual performance is described as behaviour and action towards work that are beyond the main tasks supporting the organisation. These include skills to perform extra tasks, behaviours such as taking initiative and challenging tasks, and developing knowledge and skills. Contextual performance differs from task performance in that its activities are not a formal part of the job description (Koopmans et al., 2016; Widyastuti & Hidayat, 2018). However, contextual performance indirectly contributes to organisational performance by facilitating task performance. Counterproductive work behaviours are behaviours that negatively impact the organisation and show a contradiction to the organisation's goals (Widyastuti & Hidayat, 2018).

Harter et al. (2013) highlight the relationship between meaningfulness at work and individual performance, which, as noted by Siengthai and Pila-Ngarm (2016), is a crucial contributor to the overall organisational performance. Skilled employees who realise the value of their contribution and purpose of their existence in their workplace are more likely to generate a higher level of individual performance (Sudnickas, 2016). Similarly, Alfes et al., (2013), Ghadi, Fernando, and Caputi (2015) and Karatepe, Beirami, Bouzari, and Safavi (2014) argued that meaningful work engages employees toward work and motivation, which in turn leads to individual performance. According to Ghadi et al. (2015), employees become more productive and committed to their work once they have a perfect understanding of their role in achieving specific goals in the workplace.

Meaning in work can be described as the relationship between the individual's inner effort and the external work context (Cartwright & Holmes, 2006; Sagnak, 2017). Leaders assume an important role in prompting or shaping the meaning of work in that they shape the organisation's identity, goals, objectives and missions for employees, which in turn influences the perceptions on the meaning of this work (Lysova, et al., 2019). Authentic leaders are experienced as reliable and therefore earn the respect and trust of followers (Gardner et al., 2005). They encourage employees to practise authenticity in the workplace, which results in their experiencing higher levels of meaning at work (Sagnak, 2017). The experience of

perceived fit (person-environment fit) between the individuals' roles and self-concepts results in their experiencing meaningful work and engagement (de Crom & Rothmann, 2018; May et al., 2004; Olivier & Rothmann, 2007). Steger and Dik's (2010) work and meaning model was developed to understand how employees perceive themselves and how they fit into the purpose and operations of the organisation. When employees have insight into their strengths and limitations, they would understand where they would best be effective in their work roles and tasks (Steger & Dik, 2010). If employees understand their organisations, they would understand the procedures, culture, and purpose of their organisation (Steger & Dik, 2010). When employees understand how they fit into and relate to their organisation, they should be better socialised and better at working in teams; therefore, feeling more identified and committed to their organisation (Steger & Dik, 2010). This corresponds with the findings of the Deloitte Millennial Survey (2016) which indicated that Millennials feel a strong sense of purpose if they believe that their work is worth their time and energy, which results in positive organisational outcomes. In theory, meaningful work is considered to increase work motivation and performance (Roberson, 1990; Steger & Dik, 2010).

Based on the above, the aim of this study is to explore how the relationships between person-environment fit, authentic leadership and psychological meaningfulness influence young professionals' individual work performance in organisations in South Africa. Figure 1 proposes a conceptual model of the relationships between these constructs. In the literature study, the relationships between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance are defined and described.

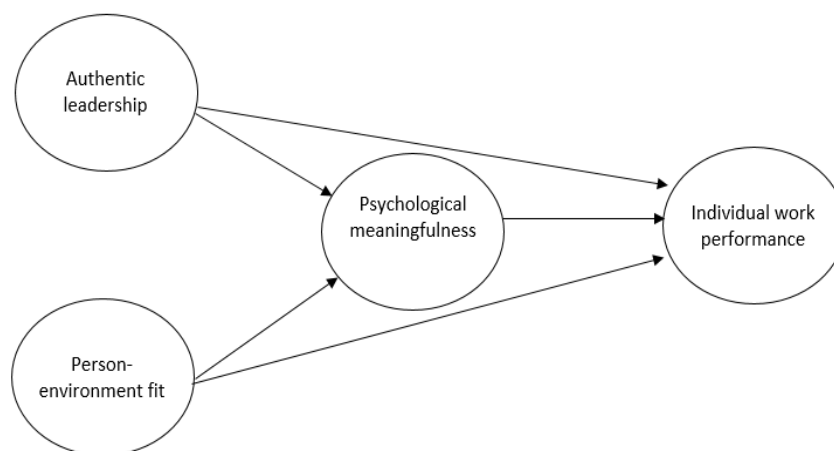


Figure 1. Conceptual model for the research

1.2 Literature Review

In order to conceptualise the discussion above, a preliminary theoretical overview of person-environment fit, authentic leadership, psychological meaningfulness and individual work performance will be provided below.

1.2.1 Person-environment Fit

In layman's terms, person-environment fit, also known as person-organisation fit, is described as a measure of fit amongst employees and their employing organisations (Silverthorne, 2004). In a more comprehensive sense, person-environment fit is defined as a matching of distinguishing individual aspects of the employee with the characteristics of the organisation that the employee is working for (Ahmad, 2010). These individual characteristics include employees' ideas, principles, values and interests, whilst the organisational characteristics comprise the organisational doctrine, norms, traditions and overall climate of the organisation (Hassan, Akram, & Naz, 2012). Person-environment fit is a multifaceted model which comprises person-organisation fit (PO fit), person-job fit (PJ fit), person-supervisor fit (PS fit), person-career fit (PC fit), person-vocation fit (PV fit), person-group fit (PG fit), demands-abilities fit (DA fit), and needs-supplies fit (NS fit) (Cable & DeRue, 2002). For this study, person-environment fit will be defined according to Cable and DeRue's (2002) conceptualisation of person-environment fit as encompassing three dimensions, namely person-organisation fit (PO fit), need-supplies fit (NS fit), and demands-abilities fit (DA fit). PO fit refers to the observed similarity between the values of the employee and the organisation (Cable & DeRue, 2002). Employees who feel connected to the organisation's purpose put organisational needs above personal needs, finding it hard to leave the organisation, experiencing PO fit (Cable & DeRue, 2002). NS fit refers to the observed compatibility between the rewards offered by the job and the skills and abilities of the employee (Cable & DeRue, 2002). This fit reflects the primary reason employees enter the organisation and is a necessary aspect of job satisfaction (Hinkle & Choi, 2009). DA fit refers to the observed compatibility between the demands of the job and the employee's skill to do the job (Cable & DeRue, 2002). If an employee's abilities exceed the demands of his or her job, the employee may become disinterested in his or her position. If an employee's abilities fail to meet the minimum requirements of the job, the employee may become less attracted to his or her job due to the inability to conduct the job, and as a result of the lack of development in skills (Cable & DeRue, 2002).

The generational differences in work values may result in generational differences in person-environment fit (Westerman & Yamamura, 2007). There are two different approaches when conceptualising person-environment fit; firstly, supplemental fit which refers to a person possessing characteristics similar to others in an environment, and then complementary fit which occurs when the characteristics of a person makes the environment whole or add to what is missing (Cable & DeRue, 2002; Muchinsky & Monahan, 1987). The second approach comprises the individual's needs-supplies and demand-abilities in relation to the environment. NS fit depends on whether the individual's needs, desires or preferences are satisfied by the environment (Kristof-Brown & Billsbery, 2013), whereas DA fit occurs if the person acquires the abilities to meet the demands of the environment. Person-environment fit has been measured in different ways, including 1) perceived fit; 2) subjective fit; and 3) objective fit (Kristof-Brown & Billsbery, 2013). Congruence between the person and his or her work environment has been found to positively impact work attitudes such as organisational commitment, higher productivity and performance, job satisfaction, greater workplace motivation, organisational tenure and a lower propensity towards turnover intention (Cable & DeRue, 2002; Giauque, Resenterra, & Siggen, 2014; Kristof-Brown et al., 2005; Queiri, Yusoff, & Dwaikat, 2014). Employees who experience positive person-environment fit are also less concerned about possible career changes, and have decreased susceptibility of intentions to leave or actual turnover (Cable & DeRue, 2002; Kristof-Brown et al., 2005). Leaders transmit organisational values to the daily work environment (Schein 2004); thus shaping their employees' environmental experiences through their own values and actions (van Vianen, 2018). Reportedly, the kind of relationship that employees have with their leaders can affect the relationship between fit and different organisational outcomes (Boon & Biron, 2016).

1.2.2 Authentic Leadership

Avolio et al. (2004) describe authentic leaders as:

Individuals who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others' values/moral perspective, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient, and high on moral character (p. 4).

George (2007) describes authenticity in leadership as leaders being true to themselves rather than attempting to develop a persona of a leader. Authentic leadership is known to facilitate a work environment that is transparent and has a positive effect on employee commitment and citizenship (Alonso, Cantisano, Leon, Moriano, & Valsania, 2014).

Neider and Schriesheim (2011) describe authentic leadership as a four-dimensional model, which consists of self-awareness, relational transparency, balanced processing and internalised moral perspective. *Self-awareness* relates to the capacity for one to reflect on one's perceived reality and understand one's strong and weak points. It is the ability for the leader to gain insight into interpersonal characteristics and understand the impact on his or her followers (Kernis, 2003). According to Stander, de Beer and Stander (2015), authentic leaders have a stable sense of self-knowledge. *Relational transparency* refers to the leader presenting his or her true and core self, as well as feelings and thoughts openly to others (Gardner, Avolio, Luthans, & Walumbwa, 2005; Stander et al., 2015). *Balanced processing* is the ability the leader has in objectively analysing all sets of information about a particular situation before making an assumption (Stander et al., 2015). *Internalised moral perspective* refers to the leader's ability to hold a firm moral position and endure societal and group pressures. It refers to the individual's strong moral convictions which guide his or her decision making (Gardner et al., 2005). According to Gardner et al. (2005), authentic leadership encourages authentic followership through positive modelling, in order to improve experienced meaningfulness at work by encouraging self-awareness and self-regulation within followers. Authentic leaders provide meaning to tasks, inputs and objectives by linking them to the beliefs and values of followers. Authentic leaders are able to enable employees' moral values and identity by connecting these moral values and identity with employees' self-concepts, resulting in increased work meaningfulness (Zhu et al., 2016).

1.2.3 Psychological Meaningfulness

Psychological meaningfulness refers to individuals' understanding of how significant it is to bring themselves to the performance roles they are required to fulfil and relates to the value of the task (Rothmann & Hamukang'andu, 2013). It is linked with motivation to engage and the perception that one is earning a return on investment of ones self-in-role as well as including intrinsically caring about a given task (Rothmann & Hamukang'andu, 2013). The experience of meaningfulness is subject to the perceived fit between an individual's self-concept and the role that he or she undertakes within the organisation (Van Zyl, Deacon, & Rothmann, 2010).

Meaningfulness comprises of two aspects, firstly being the meaning of work; and secondly being psychological meaningfulness. Meaningful work is conceptualised as consisting of three dimensions, *psychological meaningfulness* (positive meaning), which is related to the experience that work is important and meaningful; *meaning making* which relates to the experience that through meaningful work, life becomes more meaningful and lastly; and *greater good motivations*, being the third dimension, which implies that work has more meaning when it has a positive impact on other people (Steger et al., 2012). This study focuses on the dimension of psychologically meaningful work (positive meaning). According to Rosso, Dekas, and Wrzesniewski (2010), meaningful work occurs when individuals experience that what they are doing, is personally important to them. This captures the essence that individuals perceive their work to be of importance and to be meaningful (de Crom & Rothmann, 2018; Steger, 2012).

Psychological meaningfulness (positive meaning) is accomplished when employees feel worthy and important (Kahn, 1990). The feeling of meaningfulness occurs when employees believe their work is worth their time and energy, and, the purpose they are pursuing, matters to them (Thomas & Tymon, 2009). Nolan (2015), in a study related to the retention of top talent, found that dissatisfaction and lack of meaning were some of the reasons why Millennials decide to leave organisations. Nolan (2015) further suggested that HR professionals should understand the individual and person-organisation fit and create meaningfulness in employees' work in order to retain Millennial employees. Jansen and Roodt (2015) reported that, according to research, there is a link between meaningful work, performance and retention amongst employees. According to Janik and Rothmann (2015), there are three aspects that impact meaningfulness in the workplace, that is, work-role fit, job enrichment and co-worker relationships. Likewise, meaningfulness can be improved when individuals can be themselves at work, without worrying about being embarrassed (Pratt & Ashforth, 2003). Therefore, the behaviour of supervisors or leaders (Kahn & Heaphy, 2014) may consequently affect employees' experiences of meaningfulness at work. The relationship between employees and their leaders is significant in that it can provide a sense of belonging and attachment to employees' purpose, which in turn influences the employees' sense of meaningfulness of work (Steger, 2017). Janik and Rothman (2015) elucidated that a supportive leader can enhance an employee's sense of belonging and experienced meaningfulness of work, which could result in employees feeling confident enough to attempt new, creative ways of doing their work. Meaningful work is understood to improve work motivation and performance (Roberson, 1990;

Steger & Dik, 2010). Due to its increasing research base, work that is meaningful holds the potential of turning into a future trend for organisations looking to improve their performance (Dik, Byrne, & Steger, 2013).

1.2.4 Individual Work Performance

Individual work performance is an equally essential factor in all organisations and occupational disciplines (Koopmans et al., 2014). Individual work performance is described by Koopmans et al. (2016) as behaviours that are relevant to the organisational goals, concentrating mostly on behaviours and actions of employees rather than the consequences of their actions. Individual work performance consists of three constructs, being task performance, contextual performance, and counterproductive work behaviours (Koopmans et al., 2016).

Task performance is described as an individual's ability to perform the core or technical tasks that are fundamental to his or her job (Campbell, 1990; Koopmans et al., 2016). Task performance consists of behaviours related to job skills and knowledge, productivity and quality (Koopmans et al., 2013). Irrespective of task performance being the usual focus of research, researchers have established that individual work performance is more than simply attaining work goals. *Contextual performance* is defined as individual behaviours that support the organisational, social and psychological environment in which work tasks are performed (Borman & Motowidlo, 1993; Koopmans, 2014). There are numerous labels that exist for this construct, namely extra role performance, organisational citizenship behaviour, non-job specific task proficiency, and interpersonal relations. However, the concepts focus more on behaviours that extend beyond what is formally required for the task. For example, behaviours that are used to describe contextual performance include showing continuous effort, assisting the team with their performance, cooperation and effective communication (Koopmans et al., 2013). *Counterproductive workplace behaviour*, is described as behaviour that is detrimental to the interest and wellbeing of the organisation (Koopmans et al., 2016). Behaviours that describe counterproductive work behaviour include disruptive behaviour - such as taking too many or longer breaks than usual, coming to work when one is mentally not present, absenteeism, constant complaining, lack of punctuality, incorrect execution of tasks, speaking ill about co-workers, arguing or fighting with co-workers, ignoring work safety measures, misusing autonomy or privileges provided by the organisation, theft and substance abuse (Koopmans, 2014). In summary, various studies support the relationship between person-

environment fit and psychological meaningfulness (positive meaning). May, Gilson, and Harter (2004) found support for the theory that perceived fit between the person and the job is positively related to meaningfulness. When individuals experience person-environment fit, they are able to be true to their values and beliefs when performing their work, which results in experienced meaningfulness (Kira & Balkin, 2014). In a study conducted by Gul, Usman, Liu, Rehman, and Jebran (2018), a positive relationship was found between person-organisation fit and job performance. According to Gardner et al. (2005), authentic leaders would promote internalised regulation processes among their followers by means of positive modelling. This positive modelling process, according to Gardner et al. (2005), would, in turn, contribute to enhanced performance. Authentic leaders should aim to encourage psychological meaningfulness (positive meaning) among their followers, because the values they support in a transparent manner benefit the interests of the organisation and larger community (Liu, et al., 2018). Followers of authentic leaders are expected to perceive that the efforts they dedicate to the job contribute to the greater advantage of the organisation, which, in turn, creates job meaningfulness (Liu et al., 2018; Sagnak, 2017).

Therefore, this study aims to investigate the relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa and, more particularly, to determine whether authentic leadership indirectly influences individual work performance through psychological meaningfulness (positive meaning); also to determine whether person-environment fit indirectly influences individual work performance through psychological meaningfulness (positive meaning).

1.3 Research Questions

Flowing from the problem statement, the following specific research questions are formulated:

- How is the relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance conceptualised in literature?
- What is the relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa?

- Does authentic leadership indirectly influence individual work performance through psychological meaningfulness (positive meaning) of young professionals in South Africa?
- Does person-environment fit indirectly influence individual work performance through psychological meaningfulness (positive meaning) of young professionals in South Africa?

1.4 Research Objectives

The research objectives are subdivided into general and specific objectives.

1.4.1 General Objective

The general objective is to investigate the relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa.

1.4.2 Specific Objectives

The specific objectives of this study are to:

- Conceptualise through literature synthesis the relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals;
- Investigate whether there is a relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa;
- Determine whether authentic leadership indirectly influences individual work performance through psychological meaningfulness (positive meaning) of young professionals in South Africa; and
- Determine whether person-environment fit indirectly influences individual work performance through psychological meaningfulness (positive meaning) of young professionals in South Africa.

1.5 Research Design

Research Approach

A cross-sectional survey design was utilised to investigate the relationships between the variables. The study employed a quantitative approach to investigate the research objectives. The purpose of this approach was to identify whether there are relationships between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance. The design is suitable for exploratory research as it emphasises the occurrence of relationships, associations and impact of factors at a given time within a target population (Salkind, 2012; Van Zyl, 2013).

1.5.2 Research Method

The research study consisted of two phases, namely a literature review and an empirical study.

1.5.2.1 Phase 1: Literature Review

The first phase consisted of a complete literature review on person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance in order to investigate possible relationships between the variables. Articles published between 1980 and 2019 (inclusion criteria) were used from scientific databases such as, but not limited to, *EBSCOHOST*, *Emerald*, *Science Direct*, *Google Scholar*, *Google*, *SAePublications*, *Reed Business Information*, *Integrate Immigrate Service Ltd*, and *World Economic Forum*. Journals across various schools of thoughts were utilised.

1.5.2.2 Phase 2: Empirical Study

The empirical study consists of the participants, measuring batteries used, statistical analysis and the ethical considerations for the study.

1.5.3 Participants

A convenience sample ($n = 350$) of young professionals were drawn from various organisations in South Africa. A convenience sampling strategy uses participants based on their availability (Shaughnessy & Zechmeister, 2003). The participants were contacted via email and LinkedIn with permission granted by BaSSREC ethics committee (NWU-HS-2017-0070) to voluntarily participate in the study.

1.5.4 Measuring Instruments

Biographical Questionnaire

A Biographical Questionnaire was employed to determine the biographical components of the sample. The characteristics that were measured included race, gender, home language, tenure in the current organisation, and number of years in the current job.

Perceived Fit Scale

The *Perceived Fit Scale (PFS)* was employed to measure person-environment fit (Cable & DeRue, 2002). The PFS is comprised of nine items, which are composed of a seven-point Likert- scale, ranging from 1 “strongly disagree” to 7 “strongly agree”. The PFS comprises of three dimensions, namely person-organisation fit (PO fit), need-supplies fit (NS fit), and demands-abilities fit (DA fit). PO fit was measured by three items (e.g., “The things that I value in life are very similar to the things that my organisation values”). NS fit was measured by three items (e.g., “There is a good fit between what my job offers me and what I am looking for in a job”). DA fit was also measured by three items (e.g., “The match is very good between the demands of my job and my personal skills”). Redelinghuys and Botha (2016) affirmed the reliability of the PFS, obtaining Cronbach’s alpha coefficients ranging from .84 to .98 for the PFS subscales (Cable & DeRue, 2002; Hinkle & Choi, 2009), meeting the cut-off point of $\alpha = .70$ (de Vos, Strydom, Fouche, & Delpont, 2011). Cable and DeRue (2002) found satisfactory convergent and divergent validity for the PFS.

Authentic Leadership Inventory

The *Authentic Leadership Inventory (ALI)* was employed to measure employees’ perception of their direct supervisor/line manager as an “authentic leader” (Neider & Schriesheim, 2011). The ALI comprises of fourteen items and consists of four first-order factors, namely self-awareness, balanced processing, internalised moral perspective and relational transparency. For all items, a scale varying from 1 “disagree strongly” to 5 “agree strongly” was used. Examples of items include “My leader solicits feedback for improving their dealings with others” and “My leader encourages others to voice opposing points of view”. Stander, de Beer, and Stander (2015) confirmed the reliability of the ALI, obtaining a Cronbach's alpha coefficient of .93, which is accepted for this study as it meets the cut-off point of $\alpha = .70$ (de Vos et al., 2011).

Work and Meaning Inventory

The *Work and Meaning Inventory (WAMI)* (Steger et al., 2012) was used to measure psychological meaningfulness. One subscale within the WAMI, namely positive meaning which is related to the experience that work is significant and meaningful (Steger et al., 2012), was used. Positive meaning consists of four items, e.g., “I understand how my work contributes to my life’s meaning”. For all items, a scale varying from 1 “absolutely untrue” to 5 “absolutely true” was used. In terms of the overall WAMI, reliabilities varying from .82 to .89 were obtained for the subscales and .93 for the total score (de Crom & Rothmann, 2018). Steger et al. (2012) found acceptable convergent and divergent validity for the WAMI. With regard to the positive meaning subscale, Akin, Hamedoglu, Kaya, and Sariçam (2013) obtained a Cronbach’s alpha coefficient of .89.

Individual Work Performance

The *Individual Work Performance Questionnaire (IWPQ)* (Koopmans, 2015) was employed to measure employees’ individual work performance. The IWPQ consists of a three-dimensional conceptual framework including task performance, contextual performance and counterproductive workplace behaviour (Koopmans et al., 2013). These dimensions were measured on a 5-point scale ranging from 1 “seldom” to 5 “always” (Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet, & van der Beek, 2011). Task performance consisted of five items (e.g., ‘I kept in mind the results that I had to achieve in my work’) and was measured on a 5-point frequency scale ranging from 1 (seldom) to 5 (always) (Koopmans et al., 2011). Contextual performance consisted of eight items (e.g., ‘I was able to carry out my work efficiently’) and was measured on a 5-point frequency scale ranging from 1 (seldom) to 5 (always). Counterproductive work behaviour consisted of five items (e.g., ‘I made problems greater than they were at work’) and was measured on a 5-point frequency scale ranging from 1 (never) to 5 (often) (Koopmans, 2013). The internal consistency for task performance was .79, contextual performance was .83, and counterproductive work behaviour was .89 (Koopmans et al., 2015).

1.5.5 Research Procedure

Millennials (born between 1982 and 2000) from South African organisations that granted permission to conduct the study, were contacted. This was conducted by emailing and/or telephonically contacting the organisations, as well as contacting the young professionals

through LinkedIn. After the organisations or LinkedIn members had granted permission, emails including the link to the questionnaire and information regarding the study were provided to the individual and/or the organisations. Concerning the questionnaires, due to the nature of the study and the sample size, it was advisable to distribute and collect the questionnaires online through google forms. Therefore, a link was created that could be forwarded to prospective participants (Delpont & Roestenburg, 2011).

1.5 Statistical Analysis

For this study, both IBM SPSS 25 (IBM Corporation, 2017) and Mplus 8.3 (Muthén & Muthén, 1998-2018) statistical software packages were employed for the statistical analyses. Structural equation modelling (SEM) was applied to find the best fitting model and to test the hypotheses for this research. Competing measurement and structural models were tested with a maximum likelihood robust (MLR) estimator, taking skewness and kurtosis in the data into account (Byrne, 2012). To determine construct validity of the instruments, confirmatory factor analyses (CFA) were conducted. The structural model was measured by inserting the hypothesised regression paths based on the best fitting measurement model. The indices that were utilised to interpret the model's fit to the data incorporated the chi-square (χ^2), degrees of freedom (df), root mean square error of approximation (RMSEA; cut-off < .8), standardised root means square residual (SRMR; cut-off < .08). Cut-off values are based on work by Byrne (2012), Hair, Black, Babin, and Andersen (2010), and Wang and Wang (2012). The incremental fit indices comprised of the Tucker-Lewis index (TLI), as well as the comparative fit index (CFI), which must yield values above .95 to be considered excellent (Hu & Bentler, 1999). Wang and Wang (2012) consider .90 as suitable cut-off values for these two fit indices in applied research (West, Taylor, & Wu, 2012). The Akaike information criterion (AIC) and the Bayes information criterion (BIC) were employed to make a comparison of fit between the different measurement and structural models. Smaller values are preferred; in other words, the lower the value, the better the model is considered to fit the data (Hair et al., 2010). As per Kline (2016), the confidence interval of statistical significance was set at 95% ($p < .05$). Effect sizes were used as indicators of practical significance with values between .30 and .50 representing medium effects and values above .50 representing large effects (Cohen, 1988; Cohen, Cohen, West, & Alken, 2013). To evaluate the internal consistency of constructs, composite reliability coefficients (ρ) were calculated in Mplus 8.3 (Muthén & Muthén, 1998-2018), using a cut-off point of .70 (Raykov, 2009; Wang & Wang, 2012). Composite reliability was applied as it is

considered to be more effective than Cronbach's alpha coefficients, particularly when using latent variable modelling (Hair et al, 2010; Raykov, 2009). Based on the best-fitting structural model, the possible indirect effects of person-environment fit and authentic leadership, respectively, on individual work performance through psychological meaningfulness (positive meaning) were tested. Bootstrapping (5000) and the construction of bias-corrected 95% confidence intervals (CIs) were applied (Hayes, 2017).

1.6 Ethical Considerations

Ethical clearance was obtained from the Basic and Social Sciences Research Ethics Committee (BaSSREC) before the commencement of the research. Based on the code of ethics (De Vos et al., 2011), the following aspects were considered. Firstly, the researcher ensured that honesty, remaining respectful and maintaining the participants' dignity and rights were practised throughout the research. Secondly, the researcher was qualified and capable of conducting the research. Thirdly, it was ensured that fairness and integrity were practised throughout the research; and finally, it was important to remain professional and accountable for all engagements within the study.

The following explains the ethical aspects such as avoidance of harm, voluntary participation, violation of privacy and deception.

Avoidance of harm

The researcher did not participate in any actions that intentionally harmed (physically, psychologically, socially or emotionally) the participants. To avoid and reduce any harm, the participants were informed in detail of any possible risks before completing the survey.

Voluntary participation

Participants were provided with adequate information to make sound decisions about whether or not to participate in the study (De Vos et al., 2011). Participants were allowed to withdraw from the study at any given point throughout the study, and participation was voluntary.

Violation of privacy and confidentiality

The researcher guaranteed confidentiality and anonymity of information during the research study. This included the identity of the participants and any information that the participants were uncomfortable with sharing (De Vos et al., 2011). All data and responses were password protected on the researcher's personal computer.

Deception

Purposefully withholding information and misinforming participants is regarded as being deceitful (Struwig & Stead, 2013). The researcher, therefore, aimed to provide the participants with all information concerning the purpose, methods and possible risks associated with participation in the study. Furthermore, instructions provided in a manner that was easily comprehensible to the participants. The results and summary of the study were made available upon request.

1.7 Contributions to the Study

The study contributed to the individual, organisation and industrial-organisational psychology literature in the following way.

1.7.1 Expected Contributions for the Individual

The individual may gain awareness on the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance among young professionals. **1.7.2 Expected Contributions for the Organisation**

This study can assist organisations to understand the dynamics between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance among young professionals.

1.7.3 Expected Contribution to the Industrial/Organisational Psychology Literature

This study may potentially contribute towards understanding how person-environment fit, authentic leadership, psychological meaningfulness and individual work performance relate to one another in the context of young professionals.

1.8 CHAPTER DIVISION

The chapters in this research proposal are presented as follows:

Chapter 1: Research proposal and problem statement.

Chapter 2: Empirical study.

Chapter 3: Conclusions, limitations and recommendations.

References

- Adkins, A. (2016). Millennials: The job-hopping generation. *Gallup Business Journal*, 1. Retrieved from <https://www.gallup.com/workplace/236474/millennials-job-hopping-generation.aspx>
- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451–474. <https://doi.org/10.1146/annurev.psych.60.110707.163505>
- Ahmad, K. Z. (2010). Person-environment fit: A critical review of the previous studies and a proposal for future research. *International Journal of Psychological Studies*, 2(1), 71–78. Retrieved from https://www.researchgate.net/profile/Kamarul_Ahmad2/publication/43968966_Person-Environment_Fit_a_critical_review_of_the_previous_studies_and_a_proposal_for_future_research/links/57456b1808aea45ee8538d82.pdf
- Akin, A., Hamedoglu, M. A., Kaya, Ç., & Sariçam, H. (2013). Turkish version of the Work and Meaning Inventory (WAMI): Validity and reliability study. *Journal of European Education*, 3(2), 11–16. Retrieved from <https://www.eu-journal.org/index.php/JEE/article/view/194>
- Alfes, K., Shantz, A. D., Truss, C., & Soane, E. C. (2013). The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model. *The international journal of human resource management*, 24(2), 330–351.
- Alonso, F. M., Cantisano, G. T., Leon, J. A. M., & Valsania, S. E. (2012). Authentic leadership and its effect on employees' organisational citizenship behaviours. *Psicothema*, 24(4), 561–566. Retrieved from <https://www.redalyc.org/pdf/727/72723959009.pdf/> (ISSN) 0214–9915
- Anderson, H. J., Baur, J. E., Griffith, J. A., & Buckley, M. R. (2017). What works for you may not work for (Gen) Me: Limitations of present leadership theories for the new generation. *The Leadership Quarterly*, 28(1), 245–260. <https://doi.org/10.1016/j.leaqua.2016.08.001>

- Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, *15*(6), 801–823.
- Barnard, A., & Simbhoo, N. (2014). South African managers in public service: On being authentic. *International Journal of Qualitative Studies on Health and Well-being*, *9*(1), 1–13. <https://dx.doi.org/10.3402/qhw.v9.20630>
- Bednarska, M. A. (2017). Does the effect of person-environment fit on work attitudes vary with generations? Insights from the tourism industry. *International Journal of Management and Economics*, *53*(1), 65–83.
- Boon, C., & Biron, M. (2016). Temporal issues in person-organization fit, person-job fit and turnover: The role of leader-member exchange. *Human Relations*, *69*(12), 2177–2200.
- Borman, W. C., & Motowidlo, S. M. (1993). Expanding the criterion domain to include elements of contextual performance. *Personnel Selection in Organizations*; San Francisco, CA; Jossey-Bass, 71–98.
- Byrne, B. M. (2012). *Structural equation modelling with Mplus: Basic concepts, applications*, Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, *87*(5), 875–884.
- Campbell, J., 1990. Modeling the performance prediction problem in industrial and organizational psychology. In: *M.D. Dunnette and L.M. Hough (Eds.) Handbook of industrial and organizational psychology*. Palo Alto, CA; Consulting Psychologists Press, pp. Vol 1 (2nd edition); 687-732.
- Campione, W. A. (2014). The influence of supervisor race, gender, age, and cohort on Millennials' job satisfaction. *Journal of Business Diversity*, *14*(1). 18–34. <https://doi.org/10.1108/ER-04-2018-0100>
- Cartwright, S., & Holmes, N. (2006). The meaning of work: The challenge of regaining employee engagement and reducing cynicism. *Human Resource Management Review*, *16*(2), 199-208.
- Cascio, W. F., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, *3*, 349-375.
- Clapp-Smith, R., Vogelgesang, G. R., & Avey, J. B. (2009). Authentic leadership and positive psychological capital: The mediating role of trust at the group level of analysis. *Journal of Leadership and Organizational Studies*, *15*(3), 227-40.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Orlando, FL:

- Cohen, J., Cohen, P., West, S. G., & Alken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). New Jersey, NJ: Lawrence Erlbaum Associates.
- da Silva, R. C., Trevisan, L. N., Veloso, E. F. R., & Dutra, J. S. (2016). Career anchors and values from different career management perspectives. *Revista Brasileira de Gestão de Negócios-RBGN*, 18(59), 145-162.
- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment: An individual-differences model and its applications*. Minneapolis: University of Minnesota Press.
- de Crom, N., & Rothmann, S. I. (2018). Demands-abilities fit, work beliefs, meaningful work and engagement in nature-based jobs. *SA Journal of Industrial Psychology*, 44(1), 1-12.
- Deloitte Millennial Survey. (2016). *Winning over the next generation*. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-millennial-survey-2016-exec-summary.pdf>
- Delport, C. S. L., & Roestenburg, W. J. H. (2011). Quantitative data-collection methods: Questionnaires, checklists, structured observation and structured interviewed schedules. In A. S. De Vos, H. Strydom, C. B. Fouche, & C. S. L. Delport (Eds.), *Research at grassroots* (pp. 171–205). Pretoria, South Africa: Van Schaik Publishers.
- Dik, B. J., Byrne, Z. S., & Steger, M. F. (Eds.). (2013). *Purpose and meaning in the workplace*. American Psychological Association. <https://doi.org/10.1037/14183-000>
- D'Netto, B., & Ahmed, E. (2012). Generation Y: Human resource management implications. *Journal of Business and Policy Research*, 1(1), 1–9.
- Edwards, J. R., Cable, D. M., Williamson, I. O., Lambert, L. S., & Shipp, A. J. (2006). The phenomenology of fit: linking the person and environment to the subjective experience of person-environment fit. *Journal of Applied Psychology*, 91(4), 802.
- Edwards, J. R., Caplan, R. D., & Harrison, R. V. (1998). Person-environment fit theory: Conceptual foundations, empirical evidence, and directions for future research. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 28-67). Oxford: Oxford University Press.
- Friedell, K., Puskala, K., Smith, M., & Villa, N. (2012). Hiring, promotion, and progress: millennials' expectations in the workplace. Northfield, MN: St. Olaf College. Retrieved from <http://wp.stolaf.edu/sociology/files/2013/06/HiringPromotion-and-Progress.pdf>
- Gardner, W. L., & Schermerhorn, J. R. (2004). Unleashing individual potential. *Organizational Dynamics*, 33(3), 270–281.

- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. O. (2005). Can you see the real me? A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16, 343–372. doi:10.1016/j.leaqua.2005.03.003
- George, B. (2007). True North: Discover your authentic leadership. San Francisco, CA: Jossey-Base.
- Ghadi, M. Y., Fernando, M., & Caputi, P. (2015). Describing work as meaningful: Towards a conceptual clarification. *Journal of Organizational Effectiveness: People and Performance*, 2(3), 202–223.
- Giauque, D., Resenterra, F., & Siggen, M. (2014). Antecedents of job satisfaction, organizational commitment and stress in a public hospital: A PE fit perspective. *Public Organization Review*, 14(2), 201–228.
- Glass, A. (2007). Understanding generational differences for competitive success. *Industrial and Commercial Training*, 39(2), 98–103. <https://doi.org/10.1108/00197850710732424>
- Graybill, J. O. (2014). Millennials among the professional workforce in academic libraries: Their perspective on leadership. *The Journal of Academic Librarianship*, 40(1), 10-15.
- Grosskopf, J., Beyers, S., Van Velden, L., Roopnarain, R., & Stonebridge, D. (2015). Growing in turbulent times - major banks analysis: South Africa. Retrieved from <https://www.pwc.co.za/en/assets/pdf/major-banks-analysis-march-2016.pdf>
- Gul, H., Usman, M., Liu, Y., Rehman, Z., & Jebran, K. (2018). Does the effect of power distance moderate the relation between person environment fit and job satisfaction leading to job performance? Evidence from Afghanistan and Pakistan. *Future Business Journal*, 4(1), 68–83.
- Hart, K. A. (2006). Generations in the workplace: Finding common ground. *Medical Laboratory Observer*, 38(10), 26–27.
- Harter, J. K., Schmidt, F. L., Agrawal, S., Plowman, S. K., & Blue, A. (2013). *The relationship between engagement at work and organizational outcomes*. Gallup Poll Consulting University Press, Washington.
- Hassan, M. U., Akram, A., & Naz, S. (2012). The relationship between person organisation fit, person-job-fit and TI in banking sector of Pakistan: The mediating role of psychological climate. *International Journal of Human Resource Studies*, 2(3), 172–188.
- Hayes, A. F. (2017). *Introduction to meditation, moderation, and conditional process analysis*
- Hester, J. (2013). The high cost of employee turnover and how to avoid it. *Nonprofit World*, 31, 20–21.

- Heyns, M. M., & Kerr, M. D. (2018). Generational differences in workplace motivation. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *16*(0), a967. <https://doi.org/10.4102/sajhrm.v16i0.967>
- Hinkle, R. K., & Choi, N. (2009). Measuring person-environment fit: A further validation of the perceived fit scale. *International Journal of Selection and Assessment*, *17*(3), 324–328.
- Hoole, C., & Bonnema, J. (2015). Work engagement and meaningful work across generational cohorts. *SA Journal of Human Resource Management*, *13*(1), 1–11. <https://doi.org/10.4102/sajhrm.v13i1.681>
- Howe, N., & Strauss, W. (2000). *Millennials rising: The next great generation*. New York, NY: Vintage Books.
- Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaimonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly*, *16*(3), 373–394.
- Janik, M., & Rothmann, S. (2015). Meaningful work and secondary school teachers' intention to leave. *South African Journal of Education*, *35*(2), 01–13.
- Jansen, P. W. G., & Roodt, G. (2015). Preface. In P.W.G. Jansen & G. Roodt (Eds.), *Conceptualising and measuring work identity: South African perspectives and findings* (p. vii). Dordrecht, The Netherlands: Springer. <http://dx.doi.org/10.1002/cad.20090>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*, 692–724.
- Karatepe, O. M., Beirami, E., Bouzari, M., & Safavi, H. P. (2014). Does work engagement mediate the effects of challenge stressors on job outcomes? Evidence from the hotel industry. *International Journal of Hospitality Management*, *36*, 14–22.
- Katz, D. (2008). What's wrong with the kids? *CFO*, *24*, 64–68.
- Keszei, D., Murphy, K., & Loeur, N. (2018). An Evaluation of American Millennials Leading Global Teams: A Multidimensional Framework for Planning and Optimizing Success. *Journal of Management Policy and Practice*, *19*(1), 10–16. <https://doi.org/10.33423/jmpp.v19i1.1264>
- Kilber, J., Barclay, A., & Ohmer, D. (2014). Seven tips for managing Generation Y. *Journal of Management Policy and Practice*, *15*, 80–91. Retrieved from www.na-businesspress.com

- Kira, M., & Balkin, D. B. (2014). Interactions between work and identities: Thriving, withering, or redefining the self? *Human Resource Management Review*, 24(2), 131–143.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., de Vet Henrica, C. W., & van der Beek, A. J. (2011). Conceptual frameworks of individual work performance: a systematic review. *Journal of occupational and environmental medicine*, 53(8), 856–866. <https://doi.org/10.1097/JOM.0b013e318226a763>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Buuren, S., van, Beek, A. J., van der Vet, H. C. W. & De Vet H. C. (2013). Improving the Individual Work Performance Questionnaire using Rasch analysis. *Journal of Applied Measurement*, 15(2), 160–175.
- Koopmans, L., Bernaards, C., Hildebrandt, V., De Vet, H. C. W., & Van der Beek, A. J. (2014). Validity of the Individual Work Performance Questionnaire. *Journal of Occupational and Environmental Medicine*, 56(3), 331–337. <https://doi.org/10.1097/JOM.0000000000000113>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., de Vet, H. C., & van der Beek, A. J. (2014). Measuring individual work performance: Identifying and selecting indicators. *Work*, 48(2), 229–238.
- Koopmans, L. (2015). Individual Work Performance Questionnaire - instruction manual. *TNO Innovation Life*. The Netherlands: The Hague-VU University Medical Center.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Lerner, D., de Vet, H. C., & van der Beek, A. J. (2016). Cross-cultural adaptation of the individual work performance questionnaire. *Work*, 53(3), 609–619. <https://doi.org/10.3233/wor-152237>
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person group, and person-supervisor fit. *Personnel Psychology*, 58, 281–342. doi: 10.1111/j.1744-6570.2005.00672.x
- Lancaster, L. C., & Stillman, D. (2002). *When generations collide: Who they are. Why they clash. How to solve the generational puzzle at work*. New York, NY: Collins Business. Lawrence Erlbaum.
- Lee, H. F., Chiang, H. Y., & Kuo, H. T. (2019). Relationship between authentic leadership and nurses' intent to leave: The mediating role of work environment and burnout. *Journal of Nursing Management*, 27(1), 52–65.
- Lewis, J. D. (2002). Promoting growth and employment in South Africa. *South African Journal of Economics*, 70(4), 725–76. doi: 10.1111/j.1813-6982.2002.tb01187.x

- Liu, Y., Fuller, B., Hester, K., Bennett, R. J., & Dickerson, M. S. (2018). Linking authentic leadership to subordinate behaviors. *Leadership & Organization Development Journal*, 39(2), 218–233.
- Lloyd-Walker, B., & Walker, D. (2011). Authentic leadership for 21st century project delivery. *International Journal of Project Management*, 29(4), 383–395.
- Lowe, D., Levitt, K. J., & Wilson, T. (2008). Solutions for retaining Generation Y employees in the workplace. *Business Renaissance Quarterly*, 3(3), 43–58.
- Lysova, E. I., Allan, B. A., Dik, B. J., Duffy, R. D., & Steger, M. F. (2019). Fostering meaningful work in organizations: A multi-level review and integration. *Journal of Vocational Behavior*, 110, 374–389. <https://doi.org/10.1016/j.jvb.2018.07.004>
- Martins, N., & Martins, E. C. (2014). Perceptions of age generations regarding employee satisfaction in a South African organisation. *Mediterranean Journal of Social Sciences*, 5(21), 129–140. <https://doi.org/10.5901/mjss.2014.v5n 21p129>
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11–37.
- Meier, J., & Crocker, M. (2010). Generation Y in the workforce: Managerial challenges. *The Journal of Human Resource and Adult Learning*, 6(1), 68–78.
- Mokoena, S. (2012). Recruiting and retaining Generation Y teachers: Emerging strategies for school administrators. *International Journal for Cross-Disciplinary Subjects in Education*, 3(1), 687–691.
- Mouriño, E. (2017). *The perfect human capital storm: Workplace challenges and opportunities in the 21st century* (2nd ed.). Charlotte, NC: Information Age Publishing.
- Muchinsky, P. M., & Monahan, C. J. (1987). What is person-environment congruence? Supplementary versus complementary models of fit. *Journal of Vocational Behavior*, 31(3), 268–277.
- Neider, L. L., & Schriesheim, C. A. (2011). The Authentic Leadership Inventory (ALI): Development and empirical tests. *The Leadership Quarterly*, 22(6), 1146–1164. [doi:10.1016/j.leaqua.2011.09.008](https://doi.org/10.1016/j.leaqua.2011.09.008)
- Ng, E. S., Schweitzer, L., & Lyons, S. T. (2010). New generation, great expectations: A field study of the millennial generation. *Journal of Business and Psychology*, 25(2), 281–292.
- Ng, E. S., & Johnson, J. M. (2015). Millennials: who are they, how are they different, and why should we care?. In *The Multi-generational and Aging Workforce* (pp. 122-131). Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing.

- Nolan, L. S. (2015). The roar of Millennials: Retaining top talent in the workplace. *Journal of Leadership, Accountability and Ethics*, 12(5), 69–75.
- Parasuraman, S., Greenhaus, J. H., & Linnehan, F. (2000). Time, person-career fit, and the boundaryless career. In C. L. Cooper, & D. M. Rousseau (Eds.), *Trends in organizational behaviour*, (Vol. 7, pp. 63–78). West Sussex, United Kingdom: John Wiley & Sons.
- Patalano, C. (2008). A study of the relationship between generational group identification and organizational commitment: Generation X vs Generation Y. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 69(2), 671.
- Paur, C. P., Costa, D. S., & Germain, J. S. (2018). Organizational Strategies for Engaging and Retaining Millennial Employees. Retrieved from <https://digitalcommons.wpi.edu/mqp-all/1336>
- Pema-Mistry, D. (2014). Competencies as a predictor of work performance for branch managers in a banking institution. (Masters Dissertation, University of South Africa). Retrieved from <https://doi.org/10.1.1.891.6554>
- PWC (2015). *Resilient through challenging times. Major banks analysis - South Africa*. Retrieved from <https://www.pwc.co.za/en/assets/pdf/bank-analysis-15-September-2015.pdf>
- Queiri, A., Yusoff, W. F. W., & Dwaikat, N. (2014). Generation-Y employees' turnover: Work-values fit perspective. *International Journal of Business and Management*, 9(11), 199.
- Raykov, T. (2009). Evaluation of scale reliability for unidimensional measures using latent variable modelling. *Measurement and Evaluation in Counselling & Development*, 42(3), 223–232. doi:10.1177/0748175609344096
- Redelinghuys, K., & Botha, E. (2016). Person-environment fit, job satisfaction and intentions to leave: The moderating effect of leader empowering behaviour. *Journal of Psychology in Africa*, 26(1), 11-21. <https://doi.org/10.1080/14330237.2015.1101273>
- Ribeiro, N., Duarte, A. P., & Filipe, R. (2018). How authentic leadership promotes individual performance: Mediating role of organizational citizenship behavior and creativity. *International Journal of Productivity and Performance Management*, 67(9), 1585–1607.
- Roberson, L. 1990. Prediction of job satisfaction from characteristics of personal work goals. *Journal of Organizational Behavior*, 11. 29–41. <https://doi.org/10.1002/job.4030110106>
- Rothmann, S., & Hamukang'andu, L. (2013). Callings, work role fit, psychological meaningfulness and work engagement among teachers in Zambia. *South African Journal of Education*, 33(2), 1–16. Retrieved from <http://www.sajournalofeducation.co.za>

- Safer, M. (2007). The Millennials are coming [Television series episode]. In K. Textor (Producer), 60 Minutes. New York, NY: CBS News.
- Sagnak, M. (2017). Authentic leadership and altruism: The mediating role of meaningfulness. *Universal Journal of Educational Research*, 5(3), 447–452.
- Salkind, N. J. (2012). Exploring research (8th ed.). Englewood Cliffs, NJ: Pearson Prentice.
- Sayers, R. (2007). The right staff from X to Y: Generational change and professional development in future academic libraries. *Library Management*, 28(8/9), 474–487.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). San Francisco: John Wiley & Sons.
- Shaughnessy, J. J., & Zechmeister, E. B. (1997). *Research methods in psychology*. New York, NY: McGraw-Hill.
- Siengthai, S., & Pila-Ngarm, P. (2016). The interaction effect of job redesign and job satisfaction on employee performance. *Evidence-based HRM: A global forum for empirical scholarship*, 4(2), 162–180. <https://doi.org/10.1108/EBHRM-01-2015-0001>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442–1465. <https://doi.org/10.2307/256865>
- Stander, F. W., De Beer, L. T., & Stander, M. W. (2015). Authentic leadership as a source of optimism, trust in the organisation and work engagement in the public health care sector. *SA Journal of Human Resource Management/SA Tydskrifvir Menslike hulpbronnbestuur*, 13(1), <http://dx.doi.org/10.4102/sajhrm.v13i1.675>
- Steger, M. F. (2017). Creating meaning and purpose at work. *The Wiley Blackwell handbook of the psychology of positivity and strength based approaches at work*, 60–81. London: Wiley Blackwell.
- Steger, M. F., Dik, B. J., & Duffy, R. D. (in press). Measuring meaningful work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment*.
- Strauss, W., & Howe, N. (1991). Generations: The history of America's future, 1584–2069. New York, NY: Quill William Morrow.
- Struwig, F. W., & Stead, G. B. (2013). *Research: Planning, designing and reporting* (2nd ed.).
- Sudnickas, T. (2016). Different levels of performance evaluation-individual versus organizational. *Public Policy and Administration*, 15(2), 195-205. <https://doi.org/10.13165/VPA-16-15-2-01>
- Sullivan, M. J. (2018). Organizational change leadership considerations for workplace engagement, performance, and change. (Masters thesis, University of Wisconsin).

- Retrieved from
<https://minds.wisconsin.edu/bitstream/handle/1793/78120/SullivanMichael.pdf?sequence=3>
- Thomas, K. W., & Tymon, W. G. Jr (2009). Work engagement profile. CPP, Mountain View, CA. Retrieved from https://www.psychometrics.com/wp-content/uploads/2015/02/1wep_ir1.pdf
- van Vianen, A. E. (2018). Person-environment fit: A review of its basic tenets. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 75–101.
- van Zyl, L. E., Deacon, E., & Rothmann, S. (2010). Towards happiness: Experiences of work-role fit, meaningfulness and work engagement of industrial/organisational psychologists in South Africa. *SA Journal of Industrial Psychology*, 36(1), 1–10.
- Verquer, M. L., Beehr, T. A., & Wagner, S. H. (2003). A meta-analysis of relations between person-organization fit and work attitudes. *Journal of Vocational Behavior*, 63(3), 473–489.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89–126.
- Walumbwa, F., Luthans, F., Avey, J. B., & Oke, A. (2011). Authentically leading groups: The mediating role of collective psychological capital and trust, *Journal of Organizational Behavior*, 32, 4–24.
- Walumbwa, F., Wang, P., Wang, H., Schaubroeck, J., & Avolio, B. (2010). Psychological processes linking authentic leadership to follower behaviours, *The Leadership Quarterly*, 21, 901–914.
- Wang, J., & Wang, X. (2012). Structural equation modeling. Chichester, United Kingdom: Wiley.
- Westerman, J. W., & Yamamura, J. H. (2007). Generational preferences for work environment fit: effects on employee outcomes. *Career Development International*, 12(2), 150–161.
- Widyastuti, T., & Hidayat, R. (2018). Adaptation of Individual Work Performance Questionnaire (IWPQ) into Bahasa Indonesia. *International Journal of Research*, 7(2), 101–112.
- Wong, A., Wei, L., Wang, X., & Tjosvold, D. (2018). Collectivist values for constructive conflict management in international joint venture effectiveness. *International Journal of Conflict Management*, 29(1), 126–143.

- Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of management*, 36(2), 381–404.
- Zhu, W., Treviño, L. K., & Zheng, X. (2016). Ethical leaders and their followers: The transmission of moral identity and moral attentiveness. *Business Ethics Quarterly*, 26(1), 95–115.

CHAPTER 2

RESEARCH ARTICLE

Person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa

Abstract

Orientation: This study aims to address challenges organisations may face in the context of person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals (Millennials) within the current volatile, uncertain, complex and ambiguous (VUCA) work environment.

Research purpose: This research aimed to investigate the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals (Millennials - individuals born between 1982-2000, aged from 36 to 22) within organisations in South Africa.

Motivation for the study: The primary purpose of this research was to investigate whether person-environment fit, authentic leadership, and psychological meaningfulness related to individual work performance of young professionals in South African organisations.

Research approach/design and method: A quantitative approach utilising a cross-sectional survey design was employed to gather the data for the study. The sample (n = 350) comprised of working young professionals from various organisations and positions in South Africa. Questionnaires consisted of the Perceived Fit Scale (PFS), The Authentic Leadership Inventory (ALI), Work and Meaning Inventory (WAMI), and the Individual Work Performance Questionnaire (IWPQ).

Main findings: There is a positive relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance. No indirect effects were found between person-environment fit through psychological meaningfulness (positive meaning) on individual work performance. In addition, no indirect effects were found between authentic leadership through psychological meaningfulness (positive meaning) on individual work performance.

Practical/Managerial implications: The results of the study provide managers and human resource practitioners in South African organisations insight into the impact of person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and

individual work performance on young professionals. Accordingly, managers and practitioners can devise interventions that focus on person-environment fit and authentic leadership and psychological meaningfulness (positive meaning) which will positively impact young professionals' performance.

Contribution/value add: The results in this study provide scientific knowledge about person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa.

Keywords: person-environment fit, authentic leadership, psychological meaningfulness, individual work performance, young professionals, Millennials

Introduction

Technology in the present-day era is bringing about several changes. For instance, the manner in which business' generate and capture value; where, when and how individuals conduct their work, and the manner in which individuals relate and communicate with one another (Schwab, 2016). The shifting, dynamic and multifaceted business environments present momentous challenges for modern businesses that need to thrive, over and above merely surviving (van der Vaart, 2016).

The business world today can be described as a VUCA world (Nel, Stander, & Latif, 2015), which is described as an environment that is characterised by volatility, uncertainty, complexity, and ambiguity (Rodriguez & Rodriguez, 2015). Volatility or a volatile situation within organisations can be described as circumstances that are turbulent, unpredictable or uncertain (Dhir, 2019; Kornelsen, 2019). It is defined as the increase in size, operational pace, and change in the ambient nature that organisations are facing in relation to technological advancements (Dhir, 2019). Uncertainty illustrates a lack of information and the incapacity to foresee concerns or potential future threats (Dhir, 2019; Lawrence, 2013). Complexity highlights the association of interacting forces affecting organisations, which can result in ambiguity (Dhir, 2019; Lawrence, 2013). Ambiguity can be defined as the inability to conceptualise threats before they become detrimental to the organisation (Dhir, 2019).

Within the VUCA world, different generations that account for the vast majority of the current workforce including Baby Boomers, Generation X and Millennials live and relate to one another, sharing a common ground (Rodriguez & Rodriguez, 2015). Millennials, who are the most recent group that entered the labour market, have been paid particular attention (Blancero et al., 2018; Martins & Martins, 2014). It is predicted that the global workforce will comprise 50% Millennials by 2020 (Mathis, Jackson, Valentine, & Meglich, 2014) and about 75% is projected by 2025 (Herbert, 2016). It is therefore important that understanding Millennial needs should be taken into consideration (Alkire, 2014; Downs, 2015), given that a large portion of organisations are expected to be represented by Millennials (Herbert, 2016). Leaders need to understand the context of today's VUCA work environment prior to attempting to understand the changing nature of work, leadership, and culture, ensuring that organisations are responding to these changes (Sarkar, 2016). In the current turbulent environment, talent retention is a challenge for organisations (Naim, 2018). Organisations face an intimidating challenge of fulfilling the increasing expectations of the Millennial workforce (Blancero, et al., 2018).

Millennials are motivated by collaboration, innovation, relationships and recognition, and have been labelled as being technologically inclined, impatient and self-absorbed. Although this does not define Millennials completely, they are also perceived as resourceful and to care for social issues such as sustainability (Blancero, et al., 2018).

Within the context of the VUCA world and Millennials, high levels of volatility are perceived in job tenure and loyalty with minimal security to stay in the same job (Rodriguez & Rodriguez, 2015). This is challenging, given that Millennials regard staying in one job as a failure and are therefore, continuously seeking fast promotions or new challenges (Kornelsen, 2019). In general, Millennials are not loyal to the organisation, but more loyal to their jobs (Aruna & Anitha, 2015). The Deloitte Millennial Survey in 2019 found that 49% of Millennials globally, if given the choice, would quit their current jobs within the next two years. The 2017 report was at 38% (Deloitte, 2017).

Millennials may not feel the need to stay loyal to an organisation, favouring rapid career advancement, generally through job-hopping, as an alternate to traditional seniority-based promotion processes (Friedell, et al., 2012). Researchers have concluded that Millennials demonstrate comparatively lower levels of work centrality (Campioni, 2016), because they value work-life balance and consider their jobs essentially as a means to fund their lifestyles (Cairncross & Buultjens, 2010; Leask, Fyall, & Barron, 2014; Park & Gursoy, 2012). The high turnover rates that the majority of organisations experience due to Millennials job-hopping, should be taken into consideration (da Silva et al., 2016). Organisations and researchers are endeavouring to understand what motivates retention of Millennial employees (Casel, 2017), due to the costs accompanying the recruitment and training of new employees, over and above the loss of productivity from losing experienced employees. As a result of competition and talent shortage, organisations within South Africa must strive to attract and retain skilled employees so as to be competitive (Rothmann, Diedericks, & Swart, 2013). Retaining Millennials in today's corporate scenario has become a crucial task in the VUCA scenario (Aruna & Anitha, 2015).

Uncertainty can be seen in all aspects of individual and social life (Rodriguez & Rodriguez, 2015). The deficiency of information and the difficulty to anticipate issues and possible threats refers to signs of uncertainty (Dhir, 2019). As teams within organisations are faced with the struggle of uniting the newest working generation with the older generation, the workplace may encounter difficulties with regard to productivity (Stewart, Oliver, Cravens, & Oishi,

2017). Literature hints that ideological differences between generations may make it difficult for Millennials to adjust to their jobs and organisations and be recognised and accepted by their supervisors and workgroups (Myers, 2010; Schembari, 2018; Sims, Carter, Gong, & Hughes, 2019). This could increase a sense of uncertainty.

Person-environment fit, which is the match between employees and their work environments is an extensively researched topic within the field of organisational behaviour (Kristof-Brown, Zimmerman, & Johnson, 2005; Redelinguys, 2016). An essential factor of the job search process is finding a job that is a good “fit” (Schembari, 2018). Employees who perceive themselves as fitting with the values of the organisation as well as the components of the work environment are more inclined to report higher feelings of job satisfaction and are less likely to partake in counterproductive work behaviours (Kristof-Brown & Billsberry, 2013; Schembari, 2018; Queiri, Yusoff, & Dwaikat, 2014). This being said, it is of importance and best interest of both individuals and organisations to maximise fit in order to attain the best performance results (Schembari, 2018).

Person-environment fit is similarly related to employees finding meaning in their work, implying that work is perceived as meaningful, because there is a match between the individual’s values and goals and that of the organisation (Kristof-Brown, Zimmerman, & Johnson, 2005). The observed fit between employees’ concept of themselves and their job roles within the organisation leads to them experiencing meaning in their work (de Crom & Rothmann, 2018; May et al., 2004; Olivier & Rothmann, 2007). Creating meaningfulness, person-job and person-organisation fit, in employees’ tasks are crucial for HR professionals to understand, particularly when it comes to the retention of Millennial employees (Nolan, 2015).

The complexity of our world creates confusion (Rodriguez & Rodriguez, 2015). Millennials need to be led in a way where knowledge and information are shared (Naim, 2014; Naim & Lenka, 2016). In an ambiguous world, where leaders can feel overwhelmed, difficult VUCA times require collaboration among generations (Kornelsen, 2019). Millennials are prepared to participate in collaborative decision making and desire input within the organisation (Huyler, 2015); however, should generational differences get in the way, appropriate decision making cannot happen (Kornelsen, 2019). It can be anticipated that Millennials will disengage from the workplace and find meaning in other organisations should they not be part of the input and forward-thinking (which includes ongoing innovation and risk-taking) (Kornelsen, 2019).

Research on generational differences has increased in the recent decades (Sims, Carter, Gong, & Hughes, 2019; Williams & Page, 2011) and suggests differences in generational values may be the cause of a lack of job commitment from Millennials (Huylar, 2015). Organisations must endeavour to create working environments where employees can develop in order to make a positive difference in the organisation (Stander & Rothmann, 2008). Leaders understand that optimising employees can lead to ensuring organisational success (Govaerts, Kyndt, Dochy, & Baert, 2011). It is challenging to identify which leadership is best suited for a specific organisation due to the existence of multiple leadership theories and concepts (Huylar et al., 2015). However, according to Rodriguez and Rodriguez (2015), a positive approach to leadership is pivotal within a VUCA environment.

This study proposes the authentic leadership approach to assist in leading and understanding Millennials. Millennials believe in teamwork, learning, fostering relationships, and work-life balance (Gilbert, 2011; Nell, 2011). An authentic leadership methodology would contribute to the ability to continually and rapidly learn, be flexible, and foster teamwork (Kornelsen, 2019). Through coaching and mentoring practices Millennials may come to relate with their mentors and might even foster appreciation of a few of their values and perspectives (Kornelsen, 2019). This could, therefore, lead to increasing Millennials' involvement in their organisations, whilst engaging with the generations that precede them (Ng, Schweitzer, & Lyons, 2010). Authentic leaders are said to be transparent and openly share information with their employees, and are positively related to follower performance (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Harter and Adkins (2015) emphasised that when leaders transparently share information and are focused on employee development, their employees will become more engaged and their performance will improve. Authentic leadership has been associated with positive performance-related outcomes, for both leaders and their followers (Anderson, Baur, Griffith, & Buckley, 2017). Similarly, followers of an authentic leader are said to experience more organisational commitment and job satisfaction (Anderson, et al., 2017).

Leaders assume an essential role in promoting or shaping the meaning of work in that they shape the organisation's identity, goals, objectives and missions for employees, which in turn influences perceptions on the meaning of this work (Lysova, et al., 2019). Authentic leaders are experienced as being credible and therefore gain trust and respect from their followers (Gardner et al., 2005). Leaders motivate employees to practise authenticity in the workplace, which in turn results in experiencing perceived meaning at work (Sagnak, 2017).

Meaningfulness, or perceived function and purpose in job tasks, has increasingly become more important to employees (Lysova, et al., 2019). Organisations must be attentive to the search for meaning as new generations (i.e. Millennials) seek meaning in their work (Huyler et al., 2015). According to Scroggins (2008), meaningfulness is critical to engagement and turnover. Employees, who realise the value of their contribution and purpose of their existence in the workplace, are more likely to generate a higher level of individual performance (Sudnickas, 2016). Harter et al. (2013) also highlighted the relationship between meaningfulness at work and individual performance, which, as noted by Siengthai and Pila-Ngarm (2016), is a crucial contributor to overall organisational performance. It is evident from research that there is a correlation between meaningful work, and retention and performance of employees (Scroggins, 2008), with both person-environment fit and authentic leadership being important mechanisms towards creating meaningfulness at work.

The current study investigates the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South African organisations. More specifically, this research will examine the indirect role of person-environment fit and authentic leadership in influencing individual work performance through psychological meaningfulness.

Literature review

Person-environment fit

Person-environment fit is described as the congruence between employees and their work environments (Kristof-Brown & Guay, 2011). Person-environment fit is a multilevel construct which is comprised of various facets which include different conceptualisations ranging from three to eight factors. The eight factor conceptualisation include person-vocation fit (PV fit), person-organisation fit (PO fit), person-job fit (PJ fit), person-group fit (PG fit), person-supervisor fit (PS fit), person-career fit (PC fit), demands-abilities fit (DA fit), and needs-supplies fit (NS fit). Person-environment fit can be further described as a matching of distinctive individual characteristics of the employee with the characteristics of the organisation at which the employee is working (Ahmad, 2012). For the purpose of this study, emphasis will be given to the three-factor conceptualisation of person-environment fit according to Cable and DeRue (2002).

Cable & DeRue (2002) conceptualised PE-Fit of comprising of three factors including PO fit, NS fit, and DA fit. PO fit relates to the observed congruence between employees and organisational values (Cable & DeRue, 2002). When employees encounter PO fit, they experience a match between their own values and that of the organisation and their colleagues; and therefore feel devoted to the organisation's mission, place the organisation's welfare above their own and are more loyal to the organisation (Cable & DeRue, 2002; Kristof, 1996; Redelinguys & Botha, 2016). NS fit refers to the experienced compatibility between the rewards of the job and the employee's performance (Cable & DeRue, 2002; Edwards, 1991; Redelinguys, 2018). This fit is regarded as an important facet of job satisfaction, which is regarded as one of the main reasons employees enter the workforce (Hinkle & Choi, 2009). DA fit is defined as the experienced compatibility between the demands of the job and the ability of the employee to conduct the job (Cable & DeRue, 2002). If an employee's ability level exceeds the demands of his or her position, there is a risk of the employee becoming disinterested and complacent in his or her position. Similarly, when the employee's ability is too low and he or she fails to meet the minimum requirements of a position, work processes and work outcomes will be less efficient and of lower quality. (Cable & DeRue, 2002). Person-environment fit theory stipulates that the wellbeing of an individual is affected by his or her interactions with his or her work environments, the match between individual characteristics (skills, requirements, preferences, knowledge) and environmental characteristics (role characteristics, and organisational values and structures) (Shipp & Jansen 2011; Janse van Rensburg, Rothmann, & Diedericks, 2017).

Research on person-environment fit consistently supports the idea that a strong fit between person and environment correlates with more favourable work-related outcomes, such as satisfaction and commitment (Edwards, 2008). Employees who experience positive person-environment fit are more likely to be productive and perform better, have greater workplace motivation, experience more positive work attitudes and are more satisfied with their jobs (Su, Murdock, & Rounds, 2015; van Vianen, 2018). They are also not concerned about possible career changes, and have decreased susceptibility of intentions to leave or actual turnover (Cable & DeRue, 2002; Kristof-Brown et al., 2005; Kristof-Brown & Bilsbury, 2013). If Millennials have less favourable environment fit, such negative experiences may be due to incongruence between their work values and the work environment, which could lead to less emotional attachment to the organisation or less felt obligation to the organisation compared to other generations (Littau, 2009). Due to their needs not being met, it is likely that there may be

an incongruence between the Millennials' work values and the specific characteristics of the work environment which may affect their organisational commitment (Littau, 2009; Schembari, 2018). Leaders transmit organisational values to the daily work environment (Schein 2004) and thus shape their employees' environmental experiences through their own values and actions (van Vianen, 2018). Evidence proposes that the type of relationships employees have with their leaders can influence relationships between fit and multiple organisational outcomes (Boon & Biron, 2016). In relation to this study, the outcomes of these measures aim to understand how Millennials perceive their work environments in terms of fit.

Authentic leadership

Authenticity, which is a concept dating back to the early 1960s, was described by Sartre as individuals being true to and not deceiving themselves (Avolio & Mhathre, 2012). From the principal of authenticity, the authentic leadership framework emerged, which identified the qualities of authenticity in leaders (Avolio & Gardner, 2005). Authentic leadership has become a widely researched topic and has proven to be a valuable approach in a number of organisational studies (Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010; Oh, Cho, & Lim, 2018). Authenticity and its link to leadership is a paradigm that has been evaluated in scholarly research in recent years (Avolio & Gardner, 2005; Davis, & Dickens, 2011; Gardner, Cogliser, Liu, Cutcher, & Grant, 2015). Authenticity, has been described as a trait that leaders can possess or acquire. Authentic leadership is described as leaders who are aware of their thoughts and behaviours. Leaders create authenticity by ruminating on the meaning of their experiences and describing their values, needs, and aspirations (Gardner, 2005). Fusco, O'Riordan, and Palmer (2015) discovered that authentic leaders are assertive, proficient in their abilities, confident and self-assured. Furthermore, they are deliberate and consistent with their decision-making. According to Glowacki-Dudka and Griswold (2016) "authentic leadership seeks to deliver what is true to the forefront" (p. 106).

An authentic leader exhibits behaviours of inspiring and motivating others, intellectually stimulating individuals and providing individualised attention to followers (Neider & Schriesheim, 2011). According to Peus, Wesche, Streicher, Braun, and Frey (2012) as well as Alonso, Castiano, Leon, Moriano, and Valsania (2014), authentic leadership is a predictor of organisational commitment, extra effort and team effectiveness in a sample and was also found

to be positively related to organisational citizenship and work engagement (Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010).

According to Avolio and Gardner's model of authentic leadership, authentic leadership consists of four dimensions (Avolio & Gardner, 2005) consisting of *self-awareness*, which is described as the degree to which the leader is cognisant of their interaction and influence on followers through the leader's interpersonal characteristics (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). It refers to the leader's ability to make sense of his or her perceived reality and involves the leader to understand his or her own strengths and weaknesses (Avolio & Gardner, 2005). Laschinger and Fida (2014) suggested that authentic leaders have a stable sense of self-knowledge. *Internalised moral perspective*, the second dimension, is described as a leader who has strong ethical beliefs, and from a self-regulation perspective, shapes behaviour and decision-making (Avolio & Gardner, 2005; Walumba et al., 2008). It is referred to as the ability of the leader to hold a firm moral ground, which is internally inclined and can withstand both societal and group pressures. *Balanced processing* is the third dimension and also influences decision making (Kernis, 2003). This is the manner in which the individual gathers information and reaches decisions as objectively as possible, and, also in the process challenges his or her own deeply held beliefs and values (Hoch, Bommer, Dulebohn, & Wu, 2016). Simply put, it refers to the leader's ability to objectively analyse information accurately regarding a particular scenario, without coming to a particular conclusion in order to make the best decision for the organisation (Ribeiro, Duarte & Filipe, 2018). *Relational transparency*, the fourth dimension, refers to leaders presenting their true and core self to other people (Walumba et al., 2008). It enables leaders to openly express their internal feelings and thoughts (Peus et al., 2012).

With Millennials being the most recent generation entering the workforce, a challenge for leaders is to not only understand what differentiates generations, but to also accommodate their differences in perspective and discover ways to bring out the diverse qualities that are beneficial to the organisation (Au-Yong-Oliveira, Gonçalves, Martins, & Branco, 2018). The Millennial generation appreciates authenticity, and more so, authentic leaders (Au-Yong-Oliveira, Gonçalves, Martins, & Branco, 2018). Millennials show an inclination to leave if what they are promised (such as new learning opportunities) are not met (Özçelik, 2015). Mentoring and coaching may be used as effective authentic leadership approaches in order to

assist Millennials in identifying with their leaders, and consequently adapting some of their values and attitudes (Al-Asfour & Lettau, 2014).

Psychological meaningfulness

The need for meaning is a quality that is intrinsic in humans, and important for organisations to explore. Sagnak (2017) describes it as a “universal human motive” and one of the “basic mechanisms that make work meaningful” (p. 447). Psychological meaningfulness is the significance an individual attaches to his or her existence and includes the value he or she places on the existence of life and on the course of his or her life (Asiwe, Rothmann, Jorgensen, Hill, 2017; Rothmann & Hamukang’andu, 2013). Applied to the work context, psychological meaningfulness has been described as an antecedent of engagement (Rothmann & Hamukang’andu, 2013) and applies to individuals’ beliefs regarding how meaningful it is to bring themselves to the roles that they fulfil in terms of performance, linking to the value of the task. It is related to incentives to engage and for individuals to perceive that they are earning a return on investment of themselves-in-role, as well as intrinsically caring about given tasks (Rothmann & Hamukang’andu, 2013). Employees are more inclined to experience psychological meaningfulness when they believe they are useful, significant and valuable (Kahn, 1990; May, Gilson, & Harter, 2014; Rothmann & Hamukang’andu, 2013) and when the individual is able to express his or her values and beliefs in his or her work (van Zyl, 2009).

Meaningfulness encompasses two facets, namely (1) the meaning of work; and (2) psychological meaningfulness. Meaningful work is described in terms of three dimensions, namely *psychological meaningfulness* (positive meaning), which is related to the experience that work is significant and meaningful; *meaning making* which relates to the experience that through meaningful work, life becomes more meaningful; and lastly, *greater good motivations* being the third dimension, which implies that work has more meaning when it has a positive effect on others (Steger et al., 2012). This study focuses on the psychological meaningfulness dimension of meaningful work. According to Rosso, Dekas, and Wrzesniewski (2010), meaningful work is an individual’s experience that what he or she is doing, holds significance from a personal point of view; in other words, he or she judges his or her work to matter and to be meaningful (de Crom, 2018; Steger, 2012).

Work that is meaningful should facilitate an individual’s personal growth and motivation. Psychological meaningfulness has been shown to lead to greater commitment and life

satisfaction (Peterson et al., 2005). Psychological meaningfulness also has important implications for job design, employee retention, employee relations and recruitment practices (Olivier & Rothmann, 2007). Psychological meaningfulness is enhanced when employees believe that their efforts are appreciated and that organisations will offer them valuable coaching for them to improve (Li & Tan, 2013). Employees who perceive meaningfulness at work will feel that their work is necessary and thus place greater value on their work (Geldenhuys, Laba, & Venter, 2014).

Experiencing lack of psychological meaningfulness in one's work can lead to disengagement (Kahn, 1990; Olivier & Rothmann, 2007; Rothmann & Hamukang'andu, 2013). Millennials want to learn, grow and produce meaningful work (Huyler et al., 2015). In contrast to Baby Boomers, who appreciate hard work, or Generation X, who favour financial and job security, Millennials assign importance to impact and meaning in their work environments (Huyler et al., 2015). Millennials will most likely relate to and flourish in organisations where meaning is embedded within what the model encompasses. Millennials endeavour to find work that is meaningful and increases their self-efficacy (Huyler et al., 2015). Despite the fact that other generational members also pursue meaningful work, Millennials' perceptions of themselves and higher levels of self-efficacy reduce their worry of changing jobs or putting precautions in place. Leaders thus assume an important role in prompting or shaping the meaning of work in that they shape the organisation's identity, goals, objectives and missions for employees, which in turn influences the perceptions on the meaning of this work. Authentic leaders create trustworthiness and therefore gain the respect and trust of their followers (Gardner et al., 2005). Authentic leaders encourage employees to be authentic, which leads to employees experiencing more meaning at work (Sagnak, 2017). Employees who perceive work as being meaningful ascribe higher value to their jobs (Nord, Brief, Atieh, & Doherty, 1990), experience improved job satisfaction, teamwork and greater levels of overall work performance (Allan, Duffy, & Collissen, 2018; Sparks & Schenk, 2001).

Individual work performance

Although the theory of individual work performance is based solely on actions of individuals, it is a highly relevant outcome measure for research in occupational settings (Koopmans, 2014). Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet, and van der Beek (2013), define individual work performance as behaviours or actions that are relevant to the goals of the organisation and are centred primarily on employee behaviours, rather than outcomes. These

behaviours, which are characteristic of high-performing individuals, are essential to ensure organisational goal achievement (Sonnetag & Frese, 2005). Individual work performance is comprised of three broad constructs, namely task performance, contextual performance and counterproductive work behaviours (Koopmans et al., 2014).

Task performance is the aptitude and skill that individuals possess in order to perform the core tasks of their jobs (Koopmans et al., 2013). Job skills, work quantity and quality, and job knowledge are behaviours that describe task performance (Koopmans et al., 2013). Even though task performance has been the customary focus of research, researchers have recognised that individual work performance is more than only achieving work goals.

Contextual performance refers to behaviours that maintain the social, psychological and organisational environments in which the core job must be executed. Many labels exist for this dimension, namely non-job specific task proficiency, interpersonal relations, and organisational citizenship behaviour. However, the concept of contextual performance places emphasis on behaviours that exceed work goals. Demonstrating effort, assisting in peer and team performance, cooperating, and communication are a few behaviours that describe contextual performance (Koopmans et al., 2013).

Counterproductive work behaviour is described as types of behaviour that harm the interests of an organisation. These behaviours can refer to task disengagement, multiple or more prolonged breaks, presenteeism, absenteeism, complaining, late coming, performing tasks inaccurately, accidents, slandering or gossiping concerning co-workers, arguing or fighting with colleagues, disregarding safety, misuse of privileges, aggression, theft and abuse of substances (Koopmans, 2014). Of particular interest for this research is to determine how Millennials experience individual work performance by exploring relationships between person-environment fit, authentic leadership and psychological meaningfulness in organisations in South Africa, and to explore - with relation to these constructs - how to retain Millennials within these organisations.

Conceptual framework

The literature examined probable relationships between person-environment fit, authentic leadership, psychological meaningfulness, and individual work performance. Based on the

literature review, a conceptual model of the study is shown in Figure 1, which presents the hypothesised relationships between the constructs.

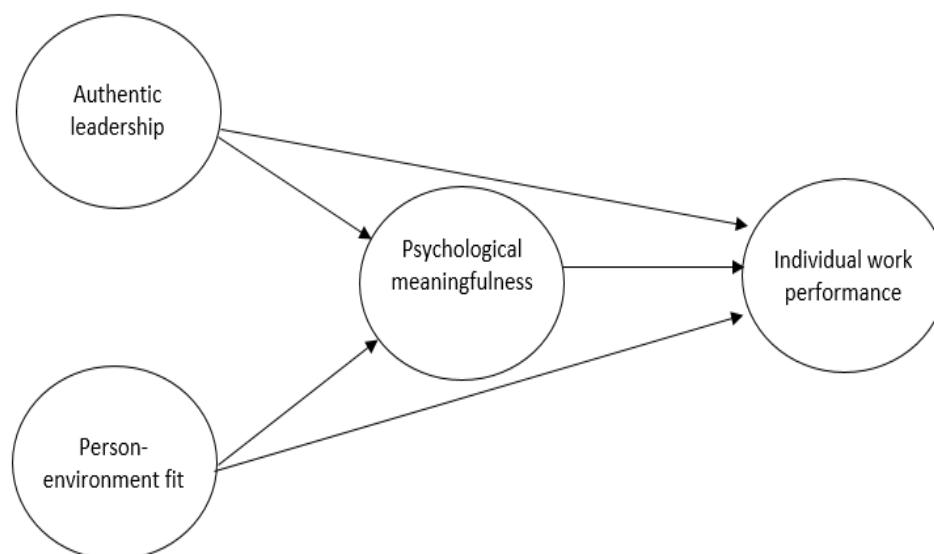


Figure 1. Conceptualised model: Relationships between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance.

Aims and hypotheses

Flowing from the above discussion, the hypotheses of the study are described as follows:

Hypothesis 1: There is a positive relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa.

Hypothesis 2: Authentic leadership indirectly influences individual work performance through psychological meaningfulness of young professionals in South Africa.

Hypothesis 3: Person-environment fit indirectly influences individual work performance through psychological meaningfulness of young professionals in South Africa.

Research design

Research approach

Cross-sectional survey design refers to the gathering of data at a single point in time whereby the data is interpreted to detect patterns of association (Bell, Bryman & Harley, 2018).

Research method

Participants

The participants were sampled from various South African organisations. A convenience sample of (n = 350) young professionals across various organisations was included. Table 1 displays the characteristics of the sample. The sample included 179 (51.1%) males and 171 (48.9%) females. The majority (57.1%) of participants were between the ages of 25-30, followed by those aged 31-36 years old (31.7%). The two predominant language groups were English (69.1%) and Afrikaans (13.4%); the remainder were from other African languages. Of the sample 299 (85.4%) reported less than five years' tenure at a particular organisation; 292 (83.4%) of the participants reported being less than five years in a particular position, and nine (2.6%) reported being longer than ten years at a particular position.

Table 1a displays the demographics of the participants and Table 1b displays the employment characteristics of the participants.

Table 1a
Personal Characteristics of the Participants (n = 350)

Item	Category	Frequency	Percentage
Gender	Male	179	51.1
	Female	171	48.9
Age (at end 2018)	19-24 years	39	11.1
	25-30 years	200	57.1
	31-36 years	111	31.7
Race	African	96	27.4
	Chinese	5	1.4
	Coloured	27	7.7
	Indian	94	26.9
	White	128	36.6
Home language	Afrikaans	47	13.4
	English	242	69.1
	isiNdebele	1	0.3
	siSwati	2	0.6
	isiXhosa	7	2.0
	isiZulu	9	2.6
	Sepedi	9	2.6
	Setswana	23	6.6
	Sesotho	7	2.0
	Tshivenda	3	0.9
Marital status	Divorced	13	3.7
	Living together	43	12.3
	Married	94	26.9
	Single	199	56.9
	Widowed	1	0.3
Number of dependents	None	238	68.0
	1	58	16.6
	2	34	9.7
	3	15	4.3
	4	3	0.9
	5	2	0.6
Number of children	None	264	75.4
	1 child	50	14.3
	2 children	32	9.1
	3 children	4	1.1
Educational level	NQF3	2	0.6
	NQF4	35	10.0
	NQF5	11	3.1
	NQF6	13	3.7
	NQF7	121	34.6
	NQF8	124	35.4
	NQF9	40	11.4
	NQF10	3	0.9

Table 1b
Employment Characteristics of the Participants (n = 350)

Item	Category	Frequency	Percentage
Professional registration	No	82	23.4
	Yes	268	76.6
Days absent (past year)	None	89	25.5
	1-5 days	202	57.9
	6-10 days	35	10.0
	11-20 days	19	5.4
	21-40 days	1	0.3
	> 40 days	3	0.9
Tenure at organisation	< 5 years	299	85.4
	6-10 years	48	13.7
	> 10 years	3	0.9
Tenure in position	< 5 years	292	83.4
	6-10 years	49	14.0
	> 10 years	9	2.6
Years working at end 2018	< 5 years	173	49.4
	6-10 years	107	30.6
	11-15 years	59	16.9
	>15 years	11	3.1

Measuring Instruments

In order to describe the biographical characteristics of the sample, a biographical questionnaire was employed. The characteristics that were measured included gender, race, home language, tenure in the current organisations, and the number of years in the current job.

The *Perceived Fit Scale (PFS)* was employed to measure person-environment fit (Cable & DeRue, 2002). The PFS includes three dimensions namely person-organisation fit (PO fit), need-supplies fit (NS fit), and demands-abilities fit (DA fit), and comprises of nine items, which are composed of a seven-point Likert- scale, ranging from 1 “strongly disagree” to 7 “strongly agree”. PO fit was measured by three items (e.g., “The things that I value in life are very similar to the things that my organisation values”). NS fit was measured by three items (e.g., “There is a good fit between what my job offers me and what I am looking for in a job”). DA fit was also measured by three items (e.g., “The match is very good between the demands of my job and my personal skills”). Redelinguys and Botha (2016) affirmed the reliability of the PFS, obtaining Cronbach’s alpha coefficients ranging from .84 to .98 for the PFS subscales (Cable & DeRue, 2002; Hinkle & Choi, 2009), meeting the cut-off point of $\alpha = .70$ (de Vos,

Strydom, Fouche, & Delpont, 2011). Cable and DeRue (2002) found satisfactory convergent and divergent validity for the PFS.

The *Authentic Leadership Inventory (ALI)* was employed to measure employees' perception of their direct supervisor/line manager as an authentic leader (Neider & Schriesheim, 2011). The ALI comprises of fourteen items and consists of four first-order factors, namely self-awareness, balanced processing, internalised moral perspective and relational transparency. For all items, a scale varying from 1 "disagree strongly" to 5 "agree strongly" was used. Examples of items include "My leader solicits feedback for improving their dealings with others" and "My leader encourages others to voice opposing points of view". Stander, de Beer, and Stander (2015) confirmed the reliability of the ALI, obtaining a Cronbach's alpha coefficient of .93, which is accepted for this study as it meets the cut-off point of $\alpha = .70$ (de Vos et al., 2011).

The *Work and Meaning Inventory (WAMI)* (Steger, Dik, & Duffy, 2012) was employed to measure psychological meaningfulness. One subscale within the WAMI, namely positive meaning which is related to the experience that work is significant and meaningful (Steger et al., 2012), was used. Positive meaning consisted of four items, e.g., "I understand how my work contributes to my life's meaning". For all items, a scale varying from 1 "absolutely untrue" to 5 "absolutely true" was used. Reliabilities varying from .82 to .89 were obtained for the subscales and a Cronbach's alpha of .93 was obtained for the total score (de Crom & Rothmann, 2018). Strong evidence regarding the construct validity of the inventory was found (Steger et al., 2012). With regard to the positive meaning subscale, Akin, Hamedoglu, Kaya, and Sarıçam (2013) obtained a Cronbach's alpha coefficient of .89.

Individual Work Performance Questionnaire (IWPQ) (Koopmans, 2015) was employed to measure individual work performance. IWPQ comprises a three-dimensional conceptual framework including task performance, contextual performance and counterproductive workplace behaviour (Koopmans et al., 2013). These three dimensions were measured on a 5-point scale ranging from 1 "seldom" to 5 "always" (Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet, & van der Beek, 2011). Task performance consisted of five items (e.g., 'I kept in mind the results that I had to achieve in my work') and was measured on a 5-point frequency scale ranging from 1 (seldom) to 5 (always) (Koopmans et al., 2011). Contextual performance consisted of eight items (e.g., 'I was able to carry out my work efficiently' and was measured on a 5-point frequency scale ranging from 1 (seldom) to 5 (always). Counterproductive work behaviour also consisted of five items (e.g., 'I made problems greater

than they were at work') and was measured on a 5-point frequency scale ranging from 1 (never) to 5 (often) (Koopmans, 2013). The internal consistency for task performance was found to be .79, with contextual performance being .83, and counterproductive work behaviour being .89 (Koopmans et al., 2015).

Procedure

Ethics approval was granted by the Basic and Social Science Research Committee (BaSSREC) of the North-West University before commencing with data collection (NWU-HS-2017-0070). Convenience sampling was used to collect data and is best described as a nonprobability type of sampling in which people are sampled because they are "convenient" sources of data for researchers (Saunders, Lewis, & Thornhill, 2012). In order to gather a sample, emails were sent to managers across various organisations, where the purpose of the study was explained and permission to conduct the research was obtained. Managers gave their consent and an email was sent for distribution to the participants, which included a short introductory summary of what the study entailed, a Google Forms link of the consent form, and the questionnaire. However, the study focused on young professionals born between 1982 and 2000 (and not a specific organisation), enabling recruitment of individual participants via other avenues. Therefore, permission was requested from the ethics committee to utilise a professional social media platform such as LinkedIn. Upon gaining permission, contact was made with individual young professionals on LinkedIn and, once connected, an email including a short introductory summary of what the study entailed, a Google Forms link of the consent form and the questionnaire, were sent.

Statistical analysis

For this study, both IBM SPSS 25 (IBM Corporation, 2017) and Mplus 8.3 (Muthén & Muthén, 1998-2018) statistical software packages were employed for the statistical analysis. Structural equation modelling (SEM) was applied to find the best fitting model for this research and to test the hypotheses. Competing measurement and structural models were tested with a maximum likelihood robust (MLR) estimator, taking skewness and kurtosis found in the data into consideration (Byrne, 2012). Confirmatory factor analyses (CFA) were performed to determine the construct validity of the instruments. The structural model was estimated by inserting the hypothesised regression paths based on the best fitting measurement model. The indices that were used to interpret the model's fit to the data included the chi-square (χ^2), degrees of freedom (df), root mean square error of approximation (RMSEA; cut-off < .08),

standardised root means square residual (SRMR; cut-off $<.08$). Cut-off values are based on work by Byrne (2012), Hair, Black, Babin, and Andersen (2010), and Wang and Wang (2012). The incremental fit indices included the Tucker-Lewis index (TLI), as well as the comparative fit index (CFI), which should yield values above $.95$ to be excellent (Hu & Bentler, 1999). Wang and Wang (2012) consider $.90$ as appropriate cut-off values for these two fit indices in applied research (West, Taylor, & Wu, 2012).

In order to compare fit between the different measurement and structural models, the Akaike information criterion (AIC) and the Bayes information criterion (BIC) were utilised. In order to test for this fit, smaller values found in the data are preferred. This means that the lower the value, the better the model fits the data (Hair et al., 2010). In accordance with Kline (2016), the confidence interval of statistical significance was set at 95% ($p < .05$). Effect sizes were used as indicators of practical significance. Values between $.30$ and $.50$ represented medium effects and values over $.50$ represented large effects (Cohen, 1988; Cohen, Cohen, West, & Alken, 2013). Composite reliability coefficients (ρ) were calculated in Mplus 8.3 (Muthén & Muthén, 1998-2018) in order to estimate the internal consistency of the constructs, with a threshold of $.70$ (Raykov, 2009; Wang & Wang, 2012). In the instance of latent variable modelling, composite reliability was utilised as it is a better estimate than Cronbach's alpha coefficients. Based on the best-fitting structural model, the potential indirect effects of person-environment fit and authentic leadership, respectively, on individual work performance through psychological meaningfulness were tested. Bootstrapping (5000) and the construction of bias-corrected 95% confidence intervals (CIs) were applied (Hayes, 2017).

Results

First, the model fit results of several competing measurement models are provided, as well as the process to improve model fit of the best fitting measurement model. Second, the model fit results and regression coefficients for the hypothesised structural model are provided together with the results of competing structural models. Lastly, any possible indirect effects of person-environment fit and authentic leadership will be reported and discussed.

Table 2 reports descriptive statistics, reliabilities, and correlations of all the variables. All measures' composite reliability coefficients ranged from $.79$ to $.90$, demonstrating acceptable internal consistency (Raykov, 2009).

All the relationships between the variables were found to be highly statistically significant at 99% confidence interval level in the expected directions. Only the correlations between

internalised moral perspective and task performance, and, contextual performance and counterproductive behaviour, respectively, were slightly less significant at a 95% confidence interval level.

Practical significance varied from small to large effects. Effects that were found to be small ($<.30$) included those between task performance and all other variables, contextual performance and three authentic leadership factors (self-awareness, internalised moral perspective, and relational transparency), and, counterproductive behaviour and both positive meaning and contextual performance. Large effects ($>.50$) were apparent for relationships between all correlations of the authentic leadership factors among themselves and with person-environment fit; person-environment fit and positive meaning, and task and contextual performance. All four authentic leadership factors and person environment fit indicated negative relationships with medium effects ($>.30$) with counterproductive work behaviour. Balanced processing and contextual performance indicated a positive medium effect.

Hypothesis 1 which states that there is a positive relationship between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa, can therefore be accepted.

Table 2
Descriptive Statistics and Reliability Coefficients

Variable	M	SD	P	1	2	3	4	5	6	7	8
Authentic leadership inventory (1-5):											
1. Self-awareness	3.40	0.89	0.79	-							
2. Balanced processing	3.41	0.95	0.87	0.97 \ddagger **	-						
3. Internalised moral perspective	3.56	0.74	0.73	0.89 \ddagger **	0.83 \ddagger **	-					
4. Relational transparency	3.61	0.90	0.81	0.94 \ddagger **	0.88 \ddagger **	0.90 \ddagger **	-				
5. Person-environment fit (1-7):	4.78	1.25	0.90	0.57 \ddagger **	0.56 \ddagger **	0.58 \ddagger **	0.57 \ddagger **	-			
Person-organisation fit	4.62	1.55	0.87								
Needs-supplies fit	4.45	1.64	0.87								
Demands-abilities fit	5.25	1.27	0.83								
Work and meaning inventory (1-5):											
6. Positive meaning	3.73	0.91	0.90	0.41 \ddagger **	0.39 \ddagger **	0.47 \ddagger **	0.41 \ddagger **	0.73 \ddagger **	-		
Individual work performance questionnaire (1-5):											
7. Task performance	3.87	0.87	0.88	0.26**	0.26**	0.16*	0.24**	0.28**	0.29**	-	
8. Contextual performance	3.66	0.87	0.86	0.29**	0.36 \ddagger **	0.27**	0.23**	0.41 \ddagger **	0.41 \ddagger **	0.61 \ddagger **	-
9. Counterproductive work behaviour	1.95	0.84	0.84	-0.37 \ddagger **	-0.35 \ddagger **	-0.38 \ddagger **	-0.37 \ddagger **	-0.31 \ddagger **	-0.26**	-0.32 \ddagger **	-0.18*

* $p < 0.05$

** $p < 0.01$

\ddagger $r > 0.30$

\ddagger $r > 0.50$

Testing the measurement model

In order to determine which combination of factor structures (as suggested in literature; Avey et al., 2011; Guest et al., 2010, Neider & Scheicher, 2011; Rothmann, 2010) fit the data best, a total of 27 hypothesised measurement models were specified. Three possible factor structures were possible: a. one second-level latent variable consisting of first-level latent variables; b. only first-level latent variable; or c. a one-factor, first-level latent variable. No items were removed from any of the questionnaires, no error correlations were allowed, and no other changes were made. The fit statistics for the 27 possible measurement models are provided in Table 3.

The results indicated possible inaccurate results for models 1 to 9, and 13 to 15, due to non-positive definite latent variable covariance matrices. This could be an indication of several problems, for example, a negative variance(s) or residual variance(s) for a latent variable(s), or correlation(s) between two latent variables greater than or equal to 1.00.

Three steps were taken to determine which model was to be used in further analysis:

1. AIC and ABIC values were compared:

The lowest values indicate the best fit for comparable models such as these. ABIC values are BIC-values specifically adjusted for sample size; therefore, BIC-values were not considered.

2. MLR-adjusted chi-square values were compared:

Chi-square values must be adjusted to be directly compared, due to the use of the MLR-estimator. The lowest chi-square value indicates best fit.

3. Significance of changes in chi-square values:

Again, because of the MLR-estimator, the Satorra-Bentler chi-square difference test (Satorra & Bentler, 1999) needs to be employed to determine whether the change in chi-squares between models is in actual fact significant. A significant change shows that the specific model against which others are compared has significantly better fit than those models.

According to each of these steps, model 11 exhibited the best fit (results for difference testing between the six models with the lowest AIC and ABIC values are reported in Table 4). Model 11 also fulfilled the criteria for acceptable fit on all other fit statistics: RMSEA = .04; CFI / TLI = .93 / .92; SRMR = .05. Inspection of the output, however, indicated a very high

modification index (MI = 100.311) between items 8 and 9 from the IWPQ. The error variances of these two items were allowed to correlate for a final run of model 11. The fit statistics improved as follows: AIC / ABIC = 41555.84 / 41675.82; MLR-adjusted χ^2 = 1560.15; RMSEA = .04; CFI / TLI = .94 / .93; and SRMR = .05.

Table 3*Fit Statistics of Competing Measurement Models*

Model	AIC	BIC	ABIC	χ^2	df	MLR- adjusted χ^2	RMSEA A	CFI	TLI	SRMR
Models 1-9 Non-positive definite latent variable covariance matrix - results not accurate										
Model 10	41691.16	42316.14	41802.22	1509.47	918	1721.40	0.04	0.92	0.92	0.07
Model 11	41666.65	42337.93	41785.94	1466.47	906	1672.95	0.04	0.93	0.92	0.05
Model 12	42685.03	43298.44	42794.04	2380.42	921	2721.30	0.07	0.81	0.80	0.08
Models 13-15 Non-positive definite latent variable covariance matrix - results not accurate										
Model 16	42062.92	42676.34	42171.93	1835.77	921	2099.20	0.05	0.88	0.87	0.07
Model 17	42039.31	42699.02	42156.54	1793.42	909	2051.67	0.05	0.89	0.88	0.06
Model 18	43056.78	43658.61	43163.73	2703.64	924	3099.19	0.07	0.77	0.75	0.08
Model 19	41759.63	42326.75	41860.41	1591.68	933	1819.92	0.05	0.92	0.91	0.07
Model 20	41735.59	42325.86	41840.49	1560.19	927	1783.92	0.04	0.92	0.91	0.06
Model 21	42753.57	43309.12	42852.30	2460.77	936	2819.80	0.07	0.80	0.79	0.08
Model 22	41757.47	42347.73	41862.36	1580.33	927	1805.68	0.05	0.92	0.91	0.06
Model 23	41733.85	42362.70	41845.60	1542.30	917	1762.08	0.04	0.92	0.91	0.05
Model 24	42750.62	43329.31	42853.46	2449.44	930	2804.85	0.07	0.80	0.79	0.08
Model 25	42131.18	42686.72	42229.91	1916.74	936	2197.55	0.06	0.87	0.87	0.07
Model 26	42108.05	42686.74	42210.89	1886.03	930	2162.34	0.05	0.88	0.87	0.06
Model 27	43125.10	43669.07	43221.77	2782.84	939	3197.48	0.08	0.76	0.75	0.09

AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; ABIC = Sample-size Adjusted BIC; χ^2 = chi-square; df = degrees of freedom; MLR = Maximum Likelihood (Robust) estimator; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative fit index; TLI = Tucker-Lewis index; SRMR = Standardized Root Mean Square Residual

Table 4

Difference Testing for Changes in Chi-square in Competing Measurement Models (Model 11 tested against five best-fitting models)

Model	$\Delta\chi^2$	Δdf	<i>p</i> -value
Model 11 vs Model 10	43.65	12	< 0.00**
Model 11 vs Model 19	119.43	27	< 0.00**
Model 11 vs Model 20	88.39	21	< 0.00**
Model 11 vs Model 22	108.78	21	< 0.00**
Model 11 vs Model 23	69.50	11	< 0.00**

** $p < 0.01$

The structural model, for evaluation of regression pathways, was therefore based on the slightly adapted model 11. The final measurement model consisted of four first-level latent variables measuring authentic leadership (self-awareness, consisting of three observed variables; balanced processing, consisting of four observed variables; internalised moral perspective, consisting of four observed variables; relational transparency, consisting of three observed variables), the second-level latent variable person-environment fit as measured by three first-level latent variables (person-organisation fit consisting of three observed variables; needs satisfaction consisting of three observed variables; demands-abilities consisting of three observed variables), positive meaning as first-level latent variable (four observed variables), and the three first-level latent variables of individual work performance (task performance consisting of five observed items; contextual performance consisting of eight observed variables; counterproductive behaviour consisting of five observed variables).

Testing the structural model

Regression pathways were added to test the hypothesised order of the latent variables. Three different structural models were tested: Model 1 (included all direct and indirect pathways), model 2 (included only the direct pathways to the outcome variable), and model 3 (contained only the indirect pathways to the outcome variable). Model fit was assessed according to the same fit statistics as before and the outcomes are provided in Table 5.

As can be seen in Table 5, the first structural model (Figure 2), including all pathways, showed the best fit according to the low values of AIC and ABIC.

Table 5

Initial Framework, Fit Indices and Standardized Path Coefficients

Measures		Direct and indirect pathways (Model 1)	Direct pathways (Model 2)	Indirect pathways (Model 3)
Fit indices	AIC	41555.84	41735.80	41582.27
	BIC	42230.98	42391.65	42199.54
	ABIC	41675.82	41852.35	41691.96
	χ^2	1370.96	1535.90	1420.24
	Df	905	910	920
	RMSEA	0.04	0.04	0.04
	CFI	0.94	0.92	0.94
	TLI	0.93	0.91	0.93
	SRMR	0.05	0.12	0.07
	Direct pathways to task performance	Positive meaning	0.24*	0.21**
Person-environment fit		0.07	0.12	-
Self-awareness		0.69	0.74	-
Balanced processing		-0.15	-0.18	-
Internalised moral perspective		-0.52	-0.53	-
Relational transparency		0.05	0.03	-
Direct pathways to contextual performance	Positive meaning	0.29	0.27**	0.42**
	Person-environment fit	0.10	0.16	-
	Self-awareness	-2.03	-2.19	-
	Balanced processing	1.91	2.01	-
	Internalised moral perspective	0.25	0.29	-
	Relational transparency	0.07	0.08	-
Direct pathways to counterproductive work behaviour	Positive meaning	-0.04	-0.08	-0.28**
	Person-environment fit	-0.11	-0.08	-
	Self-awareness	-0.54	-0.51	-
	Balanced processing	0.31	0.28	-
	Internalised moral perspective	-0.13	-0.12	-
	Relational transparency	0.07	0.05	-
Direct pathways to positive meaning	Person-environment fit	0.74**	-	0.74**
	Self-awareness	0.42	-	0.36
	Balanced processing	-0.39	-	-0.31
	Internalised moral perspective	0.23	-	0.23
	Relational transparency	-0.27	-	-0.28

* $p < 0.05$

** $p < 0.01$

The Satorra-Bentler chi-square difference test was again employed, and confirmed that model 1 had the best fit; the results of which are presented in Table 6.

Table 6

Difference Testing for Changes in Chi-square in Structural Models

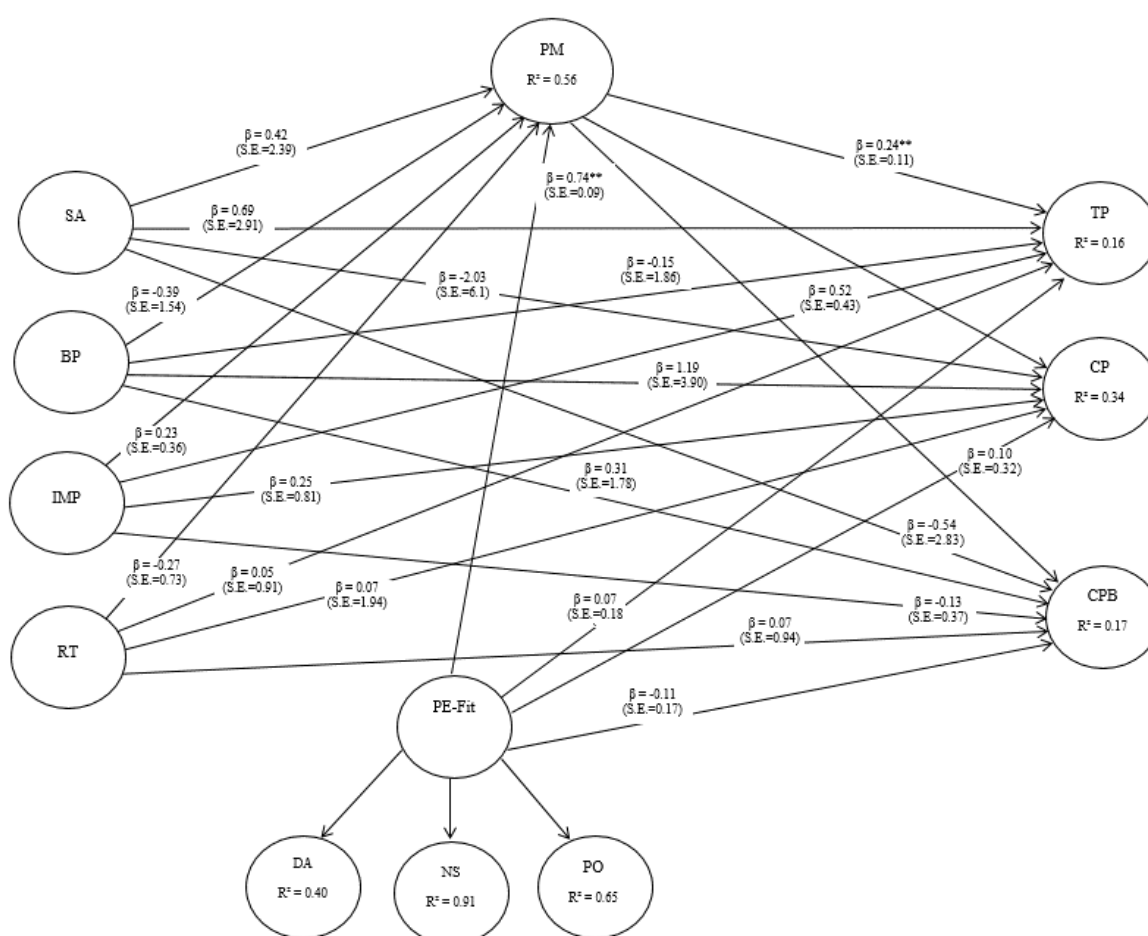
Model	$\Delta\chi^2$	Δdf	<i>p</i> -value
Full SM vs. Direct SM	136.31	5	< 0.00**
Full SM vs. Indirect SM	49.00	15	< 0.00**

* $p < 0.05$

** $p < 0.01$

As can be seen in Table 5, model 1 indicated positive meaning significantly predicted task performance ($\beta = .24, p < .05$); person-environment fit significantly predicted positive meaning ($\beta = .74, p < .01$); however, no other significant path coefficients were found.

Illustrated in Figure 2, are the significant standardised path coefficients estimated in the standardised model.



* $p < 0.05$

** $p < 0.01$

Figure 2. Path coefficients of the best fitting structural model.

Figure 2 indicates the standardised path coefficients that were estimated for the best-fitting structural model. It was found that 56% of the variance in psychological meaningfulness (positive meaning (PM) could be explained by the variables self-awareness (SA), balanced processing (BP), internalised moral perspective (IMP), relational transparency (RT), and person-environment fit. Additionally, these same variables, together with positive meaning, explained 16% of the variance in task performance, 34% in contextual performance, and 17% in counterproductive work behaviour.

The indirect effect of psychological meaningfulness

Bootstrapping - with bias-corrected confidence intervals was applied to determine whether relationships in the model were affected by psychological meaningfulness (positive meaning), as it generates more precise estimates of probable indirect effects than standard methods (Hayes, 2017). The bias-corrected confidence intervals were set at 95% for all indirect effects (MacKinnon, Lockwood, & Williams, 2004). Evidence of the indirect effect was achieved by utilising the lower and upper percentiles, which served as a limit. That is, if zero was not included within the limits, the evidence of the indirect effect was achieved (Hayes, 2017). Table 7 indicates the estimates and standard errors of the indirect effects, as well as the lower and upper CIs. It was found that none of the tested indirect effects were significant. The results were validated by all the confidence intervals containing zero. Therefore, Hypothesis 2, which states that person-environment fit indirectly affected individual work performance through psychological meaningfulness (positive meaning), was rejected. Hypothesis 3, stating that authentic leadership indirectly affected individual work performance through psychological meaningfulness (positive meaning), was also rejected.

Table 7*Indirect Effects Through Positive Meaning*

Variable	Person-environment fit			Self-awareness			Balanced processing			Internalised moral perspective			Relational transparency		
	Est.	SE	95% CI	Est.	SE	95% CI	Est.	SE	95% CI	Est.	SE	95% CI	Est.	SE	95% CI
Task performance	0.18	0.15	[-0.07. 0.52]	0.10	0.50	[-0.11. 4.70]	-0.09	0.32	[-3.66. 0.06]	0.06	0.19	[-0.11. 0.47]	-0.07	0.24	[-1.39. 0.09]
Contextual performance	0.21	0.18	[0.00. 0.74]	0.12	0.54	[-0.12. 4.69]	-0.11	0.38	[-3.55. 0.05]	0.07	0.17	[-0.11. 0.46]	-0.08	0.23	[-1.86. 0.04]
Counterproductive work behaviour	-0.03	0.14	[-0.26. 0.24]	-0.02	0.38	[-3.01. 0.09]	0.02	0.26	[-0.06. 1.49]	-0.01	0.12	[-0.26. 0.12]	0.01	0.16	[-0.06. 0.66]

* $p < 0.05$ ** $p < 0.01$

Discussion

The general aim of this study was to explore possible relationships between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa.

The results of the measurement model indicate that positive relationships did exist between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance; therefore, Hypothesis 1 was accepted.

The results indicated that person-environment fit positively related to psychological meaningfulness (positive meaning). This suggests that when the young professionals in this study experienced high levels of perceived fit within their organisations and work environments, they also experienced higher levels of meaning in their work. Further, review of the results indicated that the sub dimensions of authentic leadership (self-awareness, balanced processing, internalised moral perspective and relational transparency) positively related to person-environment fit. This suggests that when the young professionals in this sample experienced their leaders to show self-awareness, balanced processing, internalised moral perspective and relational transparency, their levels of fit within the organisation increased. Person-environment fit, authentic leadership and psychological meaningfulness (positive meaning) all positively related to task performance and contextual performance, and negatively with counterproductive workplace behaviour. This suggests that as young professionals in this study experienced high levels of fit, experienced their leaders to show authentic behaviour and experienced psychological meaningfulness (positive meaning) in their work, their task performance and contextual performance increased. They are therefore more likely to perform the fundamental tasks of their jobs, whilst also taking initiative to showcase core functions within the organisations (Koopmans et al., 2016; Widyastuti, & Hidayat, 2018). They were also less likely to partake in counterproductive work behaviours such as misusing company property, being absent from work for no reason, doing work incorrectly on purpose and theft or dishonesty (Koopmans, 2014).

Hypothesis 2 suggested that authentic leadership indirectly affects individual work performance through psychological meaningfulness (positive meaning). The results showed that authentic leadership had no significant indirect effect on individual work performance

through psychological meaningfulness (positive meaning). Although authentic leadership has a significant relationship with psychological meaningfulness (positive meaning), this interaction in itself is not a cause of individual work performance. Hypothesis 2 was therefore rejected.

Hypothesis 3 suggested that person-environment fit indirectly affects individual work performance through psychological meaningfulness (positive meaning). The results indicated that person-environment fit had no significant indirect effect on individual work performance through psychological meaningfulness (positive meaning). Although person-environment fit and psychological meaningfulness (positive meaning) were strongly related, this interaction in itself did not lead to employee performance. Hypothesis 3 was therefore rejected.

Although the results for Hypotheses 2 and 3 were rejected, authentic leadership was shown to directly positively impact individual work performance, as well as psychological meaningfulness (positive meaning). This indicates that as young professionals in this study experienced their leaders to be authentic, their task and contextual performance increased, and their counterproductive work behaviour decreased. They also experienced higher psychological meaningfulness (positive meaning) in their work. In addition to this, person-environment fit also showed a direct positive impact on individual work performance and psychological meaningfulness (positive meaning). Similarly, when young professionals in this sample experienced higher levels of fit within the organisation, their task and contextual performance, and meaning in work increased. Psychological meaningfulness (positive meaning) showed a positive impact on work performance.

Recommendations and limitations

This study found that when young professionals experience person-environment fit, authentic leadership and psychological meaningfulness (positive meaning), task performance and contextual performance increase, whereas counterproductive workplace behaviours decrease. This provides an indication that organisations can benefit by focusing on ensuring person-environment fit, creating psychologically meaningful work (positive meaning) and introducing authentic leadership development for managers and supervisors. Organisations can also utilise multi-rater surveys such as 180 or 360-degree surveys.

The development of authentic leadership is an important aspect in any organisation, as it may assist in young professionals experiencing meaning in their work and influence them in

experiencing person-environment fit and willingness to perform effectively. Kornelsen (2019) proposes that leaders implement user-friendly technology to involve different generations in knowledge and information sharing. Leaders who can include teamwork into work processes and job roles and scrutinise reward and development systems can achieve changes in young professionals' mindsets and behaviours (Kornelsen, 2019). Interventions for authentic leadership development can be implemented to enhance managerial skills such as self-awareness, relational transparency, balanced processing and internalised moral perspective by means of coaching (Coxen, Van der Vaart, & Stander, 2016).

Strategies and interventions that can improve person-environment fit can be implemented in recruitment and selection processes to ensure that the correct person is hired for the right job. Redelinghuys, Rothmann, and Botha (2019) suggest that although it is unrealistic to expect organisations to have a specific design for addressing fit, organisations should have a generic fit initiative rooted in their strategic framework, for example, in their recruitment and selection, change management, training and development, and organisational development. In addition to this, substantial induction/orientation programmes, as well as coaching for newly appointed employees, should be implemented to create fit (Janse van Rensburg et al., 2017) and psychological meaningfulness. Organisations that continuously modify these strategies will form grounds for a desirable work environment where employees can feel a sense of recognition and meaningfulness (Redelinghuys, et al., 2019). The study limitations should be noted. Firstly, the cross-sectional nature of the data employed in this study limited the ability to make causal inferences as information on the variables was provided at a specific point in time. Therefore, changes that occur over a period cannot be provisioned for. Ideally, constructs should be measured longitudinally to determine whether person-environment fit, authentic leadership and psychological meaningfulness cause individual work performance and/or vice versa.

The questionnaires employed were self-report surveys, which were the only source of information in addition to the contextual understanding of the variables in the study. This could lead to measurement errors, such as common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). A future recommendation is to use multi-source data, such as data from managers and employees.

It is recommended that similar studies on young professionals be researched to specific organisations in South Africa, as opposed to numerous organisations as this may have

influenced the generalisability of the findings. In future, as opposed to convenience sampling used in this study, random sampling should be used to select participants to ensure the absence of bias (van Zyl, Deacon, & Rothmann, 2010).

References

- Al-Asfour, A., & Lettau, L. (2014). Strategies for leadership styles for multi-generational workforce. *Journal of Leadership, Accountability and Ethics*, 11(2), 58-69.
- Alkire, T. D. (2014). The attractiveness of emerging market MNCs as employers of European and American talent workers: A multicultural study. *International Journal of Emerging Markets*, 9(2), 333–370. <http://doi.org/10.1108/IJoEM-08-2012-0091>
- Anderson, H. J., Baur, J. E., Griffith, J. A., & Buckley, M. R. (2017). What works for you may not work for (Gen) Me: Limitations of present leadership theories for the new generation. *The Leadership Quarterly*, 28(1), 245–260. <https://doi.org/10.1016/j.leaqua.2016.08.001>
- Anitha, J., & Aruna, M. (2016). Enablers of employee engagement of gen Y at the workplace with reference to automobile sector. *Amity Journal of Training and Development*, 1(1), 93-108.
- Arnold, J., & Randall, R. (2010). *Work psychology: Understanding human behaviour in the workplace*. (5th ed.). Essex, United Kingdom: Pearson Education.
- Aruna, M., & Anitha, J. (2015). Employee retention enablers: Generation Y employees. *SCMS Journal of Indian Management*, 12(3), 94.
- Asiwe, D., Rothmann, S., Jorgensen, L., & Hill, C. (2017). Engagement of employees in a research organisation: A relational perspective. *South African Journal of Economic and Management Sciences*, 20(1), 1–9.
- Au-Yong-Oliveira, M., Gonçalves, R., Martins, J., & Branco, F. (2018). The social impact of technology on Millennials and consequences for higher education and leadership. *Telematics and Informatics*, 35(4), 954–963. <https://doi.org/10.1016/j.tele.2017.10.007>
- Blancero, D. M., Mouriño-Ruiz, E., & Padilla, A. M. (2018). Latino Millennials - the new diverse workforce: Challenges and opportunities. *Hispanic Journal of Behavioral Sciences*, 40(1), 3–21.
- Bryman A., & Bell, E. (2003). *Business Research Methods*. Oxford, United Kingdom: Oxford University Press.
- Butler, L. (2018). Strategies for training a multigenerational workforce (Doctoral dissertation, Walden University). Retrieved from <https://pdfs.semanticscholar.org/b7b7/f0b56006a63f22375f02aeb54fb4551e2b8e.pdf>

- Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, 87(5), 875–884. <https://doi.org/10.1037/0021-9010.87.5.875>
- Campione, W. A. (2016). Corporate offerings: Why aren't Millennials staying? *Journal of Applied Business & Economics*, 17(4).
- Chalofsky, N., & Cavallaro, L. (2013). A good living versus a good life: Meaning, purpose, and HRD. *Advances in Developing Human Resources*, 15(4), 331–340.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Orlando, FL:
- Cohen, J., Cohen, P., West, S. G., & Alken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). New Jersey, NJ:
- Coxen, L., Van der Vaart, L., & Stander, M.W. (2016). Authentic leadership and organisational citizenship behaviour in the public health care sector: The role of workplace trust. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 42(1), a1364. <http://dx.doi.org/10.4102/sajip.v42i1.1364>
- da Silva, R. C., Trevisan, L. N., Veloso, E. F. R., & Dutra, J. S. (2016). Career anchors and values from different career management perspectives. *Revista Brasileira de Gestão de Negócios-RBGN*, 18(59), 145-162.
- Deloitte. (2017). Deloitte Millennial Survey. Deloitte. Retrieved from <https://www2.deloitte.com/il/en/pages/about-deloitte/articles/Millennialsurvey.html>
- Deloitte. (2019). Deloitte Millennial Survey. Deloitte. Retrieved from <https://www2.deloitte.com/il/en/pages/about-deloitte/articles/Millennialsurvey.html>
- Dhir, S. (2019). The changing nature of work, leadership, and organizational culture in future ready organizations. (Senior Theses, Claremont McKenna College). Retrieved from https://scholarship.claremont.edu/cmcc_theses/2064/
- Downs, L. (2015). Star talent: Investing in high-potential employees for organizational success. *Industrial and Commercial Training*, 47(7), 349–355. <http://doi.org/10.1108/ICT-06-2015-0041>
- Effect: Distribution of the product and resampling methods. *Journal of Multivariate Behavioural Resolution*, 39(1), 1–9 doi:10.1207/s15327906mbr3901_4
- Friedell, K., Puskala, K., Smith, M., & Villa, N. (2012). Hiring, promotion, and progress: millennials' expectations in the workplace. Northfield, MN: St. Olaf College. Retrieved from <http://wp.stolaf.edu/sociology/files/2013/06/HiringPromotion-and-Progress.pdf>

- Fusco, T., O'Riordan, S., & Palmer, S. (2015). Authentic leaders are... conscious, competent, confident, and congruent: A grounded theory of group coaching and authentic leadership development. *International Coaching Psychology Review*, 10(2), 131–148.
- Gardner, W. L., Coglisier, C. C., Davis, K. M., & Dickens, M. P. (2011). Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*, 22(6), 1120–1145.
- Gardner, W. L., Lowe, K. B., Moss, T. W., Mahoney, K. T., & Coglisier, C. C. (2010). Scholarly leadership of the study of leadership: A review of The Leadership Quarterly's second decade, 2000-2009. *The Leadership Quarterly*, 21, 922–958.
- Geldenhuijs, M., Laba, K., & Venter, C. M. (2014). Meaningful work, work engagement and organisational commitment. *SA Journal of Industrial Psychology*, 40(1), 01–10.
- Gilbert, J. (2011). The Millennials: A new generation of employees, a new set of engagement policies. *Ivey Business Journal*, 75(5), 26–28.
- Govaerts, N., Kyndt, E., Dochy, F. and Baert, H. (2011), "Influence of learning and working climate on the retention of talented employees", *Journal of Workplace Learning*, 23(1), 35-55. <https://doi.org/10.1108/13665621111097245>
- Gunz, H., & Coetzee, M. (2012). Careers and retention of staff in the 21st century world of work: Introduction to the special edition. *SA Journal of Human Resource Management*, 10(2), 1–4.
- Hayes, A. F. (2017). *Introduction to meditation, moderation, and conditional process analysis*
- Hayes, A. F. (2017). *Introduction to meditation, moderation, and conditional process analysis*
- Herbert, B. (2016). Moving employee talent key to competitive edge. *Strategic HR Review*, 15(2), 65–69. <http://doi.org/10.1108/SHR-01-2016-0005>
- Hoole, C., & Bonnema, J. (2015). Work engagement and meaningful work across generational cohorts. *SA Journal of Human Resource Management*, 13(1), 1–11.
- Huyler, D., Pierre, Y., Ding, W., & Norelus, A. (2015). *Millennials in the workplace: Positioning companies for future success*. Florida International University, 114–120. Retrieved from <https://digitalcommons.fiu.edu/cgi/viewcontent.cgi?article=1424&context=sferc>
- Janse van Rensburg, C., Rothmann, S. I., & Diedericks, E. (2017). Person-environment fit, flourishing and intention to leave in universities of technology in South Africa. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 43(0), a1422.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal*, 33, 692–724.

- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Van Buuren, S., Van der Beek, A. J., & De Vet, H. C. (2014). Improving the individual work performance questionnaire using rasch analysis. *Journal of Applied Measurement*, 15(2), 160–175.
- Koopmans, L., Bernaards, C., Hildebrandt, V., van Buuren, S., van der Beek, A. J., & de Vet, H. C. (2013). Development of an individual work performance questionnaire. *International Journal of Productivity and Performance Management*.
- Kornelsen, J. (2019). The quest to lead (with) Millennials in a VUCA-world: Bridging the gap between generations. In *Leading in a VUCA World* (pp. 27–41). Springer, Cham. https://doi.org/10.1007/978-3-319-98884-9_2
Lawrence Erlbaum.
- Leask, A., Fyall, A., & Barron, P. (2014). Generation Y: An agenda for future visitor attraction research. *International Journal of Tourism Research*, 16(5), 462–471. <https://doi.org/10.1002/jtr.1940>
- Lips-Wiersma, M., & Wright, S. (2012). Measuring the meaning of meaningful work: Development and validation of the Comprehensive Meaningful Work Scale (CMWS). *Group & Organization Management*, 37(5), 655–685.
- Littau, M. A. (2009). *The Millennials: An investigation of their organizational commitment, work values, and person-work environment fit* (Doctoral dissertation, Carleton University). Retrieved from <https://curve.carleton.ca/a054ff15-6512-4837-8f2b-67c4f1d667e9>
- Liu, H., Cutcher, L., & Grant, D. (2015). Doing authenticity: The gendered construction of authentic leadership. *Gender, Work & Organization*, 22(3), 237–255. <https://doi.org/10.1111/gwao.12073>
- Lyons, S. T., Schweitzer, L., Ng, E. S. W. (2015). How have careers changed? An investigation of changing career patterns across four generations, *Journal of Managerial Psychology*, 30(1), 8–21.
- Lysova, E. I., Allan, B. A., Dik, B. J., Duffy, R. D., & Steger, M. F. (2019). Fostering meaningful work in organizations: A multi-level review and integration. *Journal of Vocational Behavior*, 110, 374–389. <https://doi.org/10.1016/j.jvb.2018.07.004>
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organisational Psychology*, 77, 11–37.

- Millennial Survey. (2017). *Deloitte, social impact, innovation*. Retrieved from <https://www2.deloitte.com/global/en/pages/aboutdeloitte/articles/Millennialsurvey.html>
- Naim, M. F. (2014). Leveraging social media for Generation Y retention. *European Journal of Business and Management*, 6(23), 173–179.
- Naim, M. F. (2018). Tap the experienced to care for the inexperienced: Millennial employees' retention challenge? Mentoring is the solution. *Psychology of Retention*, 379–393.
- Naim, M. F., & Lenka, U. (2016a). Knowledge sharing as an intervention for Gen Y employees' intention to stay. *Industrial and Commercial Training*, 48(3), 142–148.
- Ng, E. S., & McGinnis Johnson, J. (2015). Millennials: Who are they, how are they different, and why should we care? *The Multigenerational Workforce: Challenges and Opportunities for Organisations*, 121–137.
- Oh, J., Cho, D., & Lim, D. H. (2018). Authentic leadership and work engagement: The mediating effect of practicing core values. *Leadership & Organization Development Journal*, 39(2), 276–290.
- Özçelik, G. (2015). Engagement and retention of the millennial generation in the workplace through internal branding. *International Journal of Business and Management*, 10(3), 99–103. <https://doi.org/10.5539/ijbm.v10n3p99>
- Park, J., & Gursoy, D. (2012). Generation effects on work engagement among US hotel employees. *International Journal of Hospitality Management*, 31(4), 1195–1202.
- Queiri, A., Yusoff, W. F. W., & Dwaikat, N. (2014). Generation-Y employees' turnover: Work-values fit perspective. *International Journal of Business and Management*, 9(11), 199–213. <https://doi.org/10.5539/ijbm.v9n11p199>
- Raykov, T. (2009). Evaluation of scale reliability for unidimensional measures using latent variable modelling. *Measurement and Evaluation in Counselling & Development*, 42(3), 223–232. <https://doi.org/10.1177/0748175609344096>
- Redelinghuys, K. (2018, October 16). The conundrum of person-environment fit/misfit: A world of possibilities. <https://doi.org/10.31234/osf.io/adg5y>
- Redelinghuys, K., & Botha, E. (2016). Person-environment fit, job satisfaction and intentions to leave: The moderating effect of leader empowering behaviour. *Journal of Psychology in Africa*, 26(1), 11–21. <https://doi.org/10.1080/14330237.2015.1101273>
- Redelinghuys, K., Rothmann, S., & Botha, E. (2019). Workplace flourishing: Measurement, antecedents and outcomes. *SA Journal of Industrial Psychology*, 45(1), 1–11. <https://doi.org/10.4102/sajip.v45i0.1549>

- Rodriguez, A., & Rodriguez, Y. (2015). Metaphors for today's leadership: VUCA world, millennial and "Cloud Leaders". *Journal of Management Development*, 34(7), 854–866.
- Rothmann, S., & Hamukang'andu, L. (2013). Callings, work role fit, psychological meaningfulness and work engagement among teachers in Zambia. *South African Journal of Education*, 33(2). 1–16.
- Rothmann, S., & Olivier, A. L. (2007). Antecedents of work engagement in a multinational company. *SA Journal of Industrial Psychology*, 33(3), 49–56.
- Rothmann, S., Diedericks, E., & Swart, J. P. (2013). Manager relations, psychological need satisfaction and intention to leave in the agricultural sector. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 39(2), 1–11
<http://dx.doi.org/10.4102/sajip.v39i2.1129>
- Sagnak, M. (2017). Authentic leadership and altruism: The mediating role of meaningfulness. *Universal Journal of Educational Research*, 5(3), 447–452.
- Sarkar, A. (2016). We live in a VUCA World: The importance of responsible leadership. *Development and Learning in Organizations: An International Journal*, 30(3), 9–12.
- Schembari, A. (2018). *The effect of career preparation and perceived proactivity on anticipated person-environment fit*. (Honors Thesis, University of Iowa). Retrieved from https://ir.uiowa.edu/honors_theses/123
- Sims, C. M., Carter, A. D., Gong, T., & Hughes, C. (2019). Gender, identity, and the authentic leadership of small businesses. *International Leadership Journal*, 11(2), 3–31.
- Society for Human Resource Management. (2004). *Leadership styles series part ii: Leadership styles*. Retrieved from <http://multigen.shrmindia.org/resources/articles/leadership-styles-series-part-ii-leadership-stylesgenerational-differences>
- Sonnentag, S. & Frese, M. (2005). Performance Concepts and Performance Theory, In Psychological Management of Individual Performance (ed Sonnentag, S.), John Wiley & Sons, Ltd, Chichester: UK. <https://doi.org/10.1002/0470013419.ch1>
- Stein, J. (2013). Millennials: The me me me generation. *Time Magazine*, 20, 1–8.
- Su, R., Murdock, C. D., & Rounds, J. (2015). Person-environment fit. In P. J. Hartung, M. L. Savickas, & W. B. Walsh (Eds.), *APA handbook of career interventions* (pp. 81–89). Washington, DC: American Psychological Association.
- Thomas, A. L., & Kerr-Phillips, B. (2009). Macro and micro challenges for talent retention in South Africa. *SA Journal of Human Resource Management*, 7(1), 1–10.

- United States Department of Commerce. (2011). *Traditionalists, Boomers, X'ers and Nexters- NOAA's generational diversity at work*. National Oceanic and Atmospheric Administration, U.S. Department of Commerce. Retrieved from <http://www.rdc.noaa.gov/~Diversity/genarticle.html>
- Valsania, S. E., León, J. A. M., Alonso, F. M., & Cantisano, G. T. (2012). Authentic leadership and its effect on employees' organizational citizenship behaviours. *Psicothema*, 24(4), 561–566.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89–126.
- Wang, J., & Wang, X. (2012). *Structural equation modeling*. Chichester, United Kingdom:Wiley.
- Wang, J., & Wang, X. (2012). *Structural equation modeling*. Chichester, United Kingdom:Wiley.

CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The objective of this chapter is to present the outcomes of the current study according to its general and specific objectives. Additionally, the limitations of the study are discussed and recommendations are made for the organisation and future research.

3.1 Conclusions from Literature and Empirical Results

This study aimed to investigate the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa.

The first objective was to conceptualise the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa.

Person-environment Fit

The understanding of person-environment fit is of equal importance to organisations and literature. Person-environment fit theoretically shares the following principles, namely that individuals seek and shape environments that allow them to demonstrate their characteristics behaviourally (Su, Murdock, & Rounds, 2015). Person-environment fit postulates that employees who fit their work environments are known to experience job satisfaction, increased performance and productivity, and reduced stress and turnover; thus, better fit is associated with better outcomes (Cable & DeRue, 2002; Kristof-Brown et al., 2005; Sur, Murdock, & Rounds, 2015). Person-environment fit is an ongoing process whereby individuals mould their environments and vice versa (Cable & DeRue 2002, Rounds & Tracey, 1990).

Literature hints that ideological differences between generations may make it difficult for Millennials to adjust to their jobs and organisations and be recognised and accepted by their supervisors and work groups (Myers, 2010; Schembari, 2018; Sims, Carter, Gong, & Hughes, 2019). An essential factor of the job search process is finding a job that is a good “fit”. Employees who perceive themselves as being aligned with the values of the organisation as well as the components of the work environment, are more inclined to report higher feelings of job satisfaction and are less likely to partake in counterproductive work behaviours (Kristof-

Brown & Billsberry, 2013; Schembari, 2018; Queiri, Yusoff, & Dwaikat, 2014). This being said, it is of importance and to the best interest of both individuals and organisations to maximise fit in order to attain the best performance results (Schembari, 2018). Although it is difficult to determine which leadership style is best in any given organisation, a positive approach to leadership such as authentic leadership is suggested (Rodriguez & Rodriguez, 2015).

Authentic Leadership

Authentic leadership that originates from the field of positive psychology (Seligman, 2002) is defined as “a process that draws from both positive psychological capacities and a highly developed organisational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development” (Luthans & Avolio, 2003, p. 243). Based on a revised version of Luthans and Avolio’s (2003) initial definition of authentic leadership, and including the underlying dimensions of the construct suggested by Gardner, et al., (2005) and Ilies, Morgeson and Nahrgang (2005), Walumbwa et al. (2008) defined authentic leadership as:

A pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information and relational transparency on the part of leaders working with followers, fostering positive self-development (p. 94).

Avolio and Gardner’s model of authentic leadership comprises of four dimensions. These being self-awareness, relational transparency, balanced processing and internalised moral perspective (Walumbwa et al., 2008). Self-awareness describes leaders’ awareness of themselves and the impact they have on others (Kernis, 2003; Walumbwa et al., 2008); balanced processing refers to the leader’s ability to take into account different perspectives while making decisions in order to maintain objectivity, despite personal beliefs or feelings (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Walumbwa et al., 2008); relational transparency refers to the leader being honest and transparent in his or her interactions with others by displaying his or her real emotions and thoughts with others (Kernis, 2003; Walumbwa et al., 2008); and lastly, internalised moral perspective is depicted by the leaders ability to process information and

make decisions based on their core values and beliefs without being influenced by peer pressure or opinions of other individuals (Avolio & Gardner, 2005; Gardner et al., 2005; Walumbwa et al., 2008).

According to Gardner et al. (2005), authentic leadership encourages authentic followership by means of positive modelling, and it is expected to improve experienced meaningfulness at work by inciting followers' self-regulation and self-awareness. Authentic leaders provide meaning to tasks and objectives by linking them to their followers' beliefs and values. They facilitate employee internalisation of values and identity, creating a link with employees' self-concept which enhances work meaningfulness (Zhu et al., 2016).

Psychological Meaningfulness

Meaningfulness at work concerns individuals' perceptions of circumstances in their lives and work, as well as the importance assigned to these circumstances in the context of their aims and the beliefs, values and personal identity that are created (de Crom & Rothmann, 2018; Matuska & Christiansen, 2008). Psychological meaningfulness is the significance an individual attaches to his or her existence and includes the value he or she places on the existence of life and on the course of his or her life (Asiwe, Rothmann, Jorgensen, & Hill, 2017; Rothmann & Hamukang'andu, 2013). It relates to the feeling that one's physical, cognitive or emotional energies are of importance (Kahn & Heaphy, 2014). Numerous determinants contribute to meaningful work (Pratt & Ashforth, 2003). Kristof-Brown, Zimmerman, and Johnson (2005) drew attention to the fact that work is considered meaningful when there is a match between an individual's objectives and values with that of the organisation.. The observed fit between individuals' self-concept and their work roles (i.e. person-environment fit) leads to them experiencing meaningful work and engagement (May et al., 2004; Olivier & Rothmann, 2007).

Millennials want to learn, develop their potential, and do meaningful work (Kornelsen, 2019 as cited in Müller, 2013). They believe in teamwork, fostering relationships and work-life balance. They also desire input within the organisation as well as to be part of decision making. Should Millennials not be part of input and forward thinking (which consists of constant innovation and risk taking), it can be expected that they will disengage from the workplace and find meaning elsewhere. Workplace engagement is important as it leads to meaning making. Meaning making relates to the experience that through meaningful work, life becomes more

meaningful (Huylers, Pierre, Ding, & Norelus, 2015). This in turn leads to workplace engagement and Millennials shaping their self-conscience (Chalofsky & Cavallaro, 2013).

Millennials would rather work in jobs that are not lucrative or career-oriented but preferably in jobs that are more enjoyable, satisfying and enables work-life balance (Chalofsky & Cavallaro, 2013). They search for work that is meaningful and enhances their sense of self-efficacy (Huylers, 2015). Despite the fact that other generational members also pursue meaningful work, Millennials' perceptions of themselves and higher levels of self-efficacy reduces their worry when changing jobs or putting precautions in place. (Chalofsky & Cavallaro, 2013; Huylers et al., 2015).

Organisations must, therefore, concentrate on creating meaning, as new generations (i.e. Millennials) need their work to be meaningful. Millennials' attitudes toward education and employment have changed considerably compared to other generations (Huylers et al., 2015). Authentic leadership approaches can assist or promote Millennials in terms of learning and fostering teamwork (Kornelsen, 2019), which in turn could lead to experiencing meaningfulness. Psychological meaningfulness is a psychological state that influences one's performance and engagement in their work roles (de Crom & Rothmann, 2018; Olivier & Rothmann, 2007; Rothmann & Rothmann, 2010). Individuals lacking in meaningfulness believe that they are not needed to input much in their work role and therefore underperform (de Crom & Rothmann, 2018).

Individuals who experience their jobs as meaningful, evaluate themselves as having higher levels of psychological adjustment and display qualities that are beneficial to the organisation (Steger, Dik, & Duffy, 2012). Individuals who feel work as being meaningful report greater well-being, perceive their work to be more central (Arnold, Turner, Barling, Kelloway, & McKee, 2007; Harpaz & Fu, 2002; Steger et al., 2012), prioritise their work, report higher job satisfaction, collaboration and higher levels of overall work performance (Geldenhuys, Laba & Venter, 2014).

Individual Work Performance

Individual work performance is an important factor in all organisations and occupational disciplines alike (Koopmans et al., 2014). Koopmans et al. (2016) describe individual work performance as behaviours or actions that positively impact the goals of the organisation where emphasis is placed primarily on behaviours and actions of employees as opposed to outcomes

of these actions. Individual work performance consists of three constructs, namely task performance, contextual performance, and counterproductive work behaviours (Koopmans et al., 2016). Task performance is defined as the propensity to which an individual performs the core tasks of their job; contextual performance is defined as individual behaviour that displays supporting behaviours that contribute positively towards the organisational, social and psychological environment; and counterproductive work behaviour refers to behaviours that are harmful and may be detrimental to the organisation (Koopmans, Bernaards, Hilderbrandt, de Vet, & van der Beek, 2014).

Based on the literature above, it is evident that there are links between the constructs person-environment fit, authentic leadership, psychological meaningfulness and individual work performance. The links between the constructs may imply that person-environment fit, authentic leadership, and psychological meaningfulness may be valuable in increasing individual work performance of young professionals; hence, the need for research in this regard.

The second objective was to investigate whether there is a positive relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa.

In order to determine relationships between person environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South Africa, statistical analyses were conducted. The results indicated that person-environment fit had a significant positive relationship with psychological meaningfulness (large effect). The results imply that when young professionals experience fit with their organisations, they can experience meaning in their work. Psychological meaningfulness (positive meaning) occurs when employees feel useful and valuable (Kahn, 1990). A possible explanation for this is explained by work-role fit and positive interpersonal interactions with colleagues (Rothmann & Olivier, 2007). A perceived fit between an employee's self-concept and his or her work roles will lead to an experienced sense of meaning as a result of the employee's capability of expressing his or her values and beliefs (Rothmann & Olivier, 2007).

This is also supported by other research which validates that person-environment fit predicts outcomes such as work meaning, organisational tenure and commitment, and decreased turnover (Duffy, Autin, & Bott, 2015; Duffy, Dik, England, & Velez, 2018; Kristof-Brown, Zimmerman, & Johnson, 2005).

In addition to this, person-environment fit had a positive significant relationship with task performance (small effect) and contextual performance (medium effect), and a negative significant relationship with counterproductive workplace behaviour (medium effect). The results imply that a perception of person-environment fit is an important factor for task performance as it assists in understanding the employee's behaviour in terms of the task at hand (Vogelsang, 2018). This is based on the premise that the environment in which the employee performs the task is influenced by the execution of the task (Edwards & Shipp, 2007). Demands abilities fit and needs supply fit, which are subscales of person-environment fit, have been found to have a positive effect on contextual performance in that employees who feel that they belong to learning and motivating environments, are more likely to perform over and above their duties (Bednarskra, 2017). Bednarskra (2017) states that lower person-environment fit experienced by Millennials may lead to higher counterproductive workplace behaviours. Thus, the higher the perceived fit, the lower the need for an employee to take part in counterproductive workplace behaviours. A positive fit with the environment has also been said to contribute towards lower intentions to leave and partake in counterproductive workplace behaviours (Schembari, 2018).

Authentic leadership had a significant positive relationship with psychological meaningfulness (large effects); task performance (small effect); contextual performance (medium effect); and a negative significant relationship with counterproductive work behaviour (medium effect). The results imply that when authentic leadership is perceived by young professionals, their meaning in their work increases. Leaders play an important role in encouraging the meaning of work in that they develop the organisation's identity, goals and employee objectives, which influences meaningful work perceptions (Lysova, et al., 2019). Additionally, employees who perceive their leaders as authentic, exhibit higher commitment in the execution of their tasks and have higher focus on achieving their objectives (Darvish & Rezaei, 2011; Leroy, Palanski, & Simons, 2012; Ribeiro, Duarte, & Filipe, 2018).

The third objective was to determine whether authentic leadership indirectly influences individual work performance through psychological meaningfulness of young professionals in South Africa.

The results of this study indicated that authentic leadership did not have an indirect effect on individual work performance through psychological meaningfulness. However, relationships were found between authentic leadership and individual work performance and psychological

meaningfulness. Authentic leaders create work environments that are oriented towards developing the strengths of their followers, in that the environments are inclusive and engaged (Nel, Stander, & Latif, 2015). Millennials are likely to feel a strong sense of meaning at work when they experience their leaders as being authentic (Blancero, et al., 2018). Consequently, this could lead to young professionals performing effectively.

The fourth objective was to determine whether person-environment fit indirectly influences individual work performance through psychological meaningfulness of young professionals in South Africa.

May, Gilson, and Harter (2004) supported the concept that when there is congruence between the individual and the job, it relates positively to meaningfulness. This relationship occurs because individuals perceiving person-environment fit can demonstrate their opinions and values in their work (Kira & Balkin, 2014), which creates meaningfulness. Additionally, Gul, Usman, Liu, Rehman, and Jebran (2018) found a positive relationship between person-organisation fit and job performance. However, the results of this study indicated that person-environment fit did not have an indirect effect on individual performance through psychological meaningfulness. The results, however, did indicate relationships between person-environment fit and the subscales of individual work performance (small and medium effects), as well as person-environment fit and psychological meaningfulness (large effect).

3.2 Limitations and Recommendations for Future Research

The study limitations should be noted. First, the cross-sectional nature of the data utilised in this study limited the ability to make causal inferences as information on the variables was provided at a specific point in time. Therefore, changes that occur over a period of time cannot be provisioned for. In future, constructs should be measured longitudinally to determine whether person-environment fit, authentic leadership and psychological meaningfulness cause individual work performance and/or vice versa over a period of time. Second, the only basis of information for the study were self-report surveys from the questionnaires and the theoretical understanding of the concepts of the study. This may result in common method bias, which may lead to measurement errors (Podsakoff, MacKenzie, & Podsakoff, 2012). Recommendations for future research is to use multi-source data, for example managers and employees. It is recommended that similar studies on young professionals be researched in specific organisations in South Africa, as opposed to numerous organisations, as this may have

influenced the generalisability of the findings. In future, random sampling should be used to select participants in order to ensure the absence of bias (van Zyl, Deacon, & Rothmann, 2010).

3.3 Recommendations for Practice

Regardless of the limitations of the study, the study has important implications for practice, furthering the last objective of this study. This study supports positive relationships between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance of young professionals in South Africa.

This study could assist organisations in understanding the dynamics between person-environment fit, authentic leadership, psychological meaningfulness (positive meaning) and individual work performance among young professionals. In addition, this study could assist organisations in the enhancement and improvement of leadership styles. The improvement of leadership styles can increase employees' individual performance; thus, this would contribute to organisational outcomes being achieved. This study can contribute to the awareness of the importance of proper fit, and thus assist with better selection and recruitment processes. The study can highlight the need to understand generational differences in the workforce, and can assist with reducing turnover or improving retention strategies for Millennials and other generations alike.

The development of authentic leadership is an essential aspect in any organisation as it may assist in young professionals experiencing meaning in their work and influence them in experiencing person-environment fit and the willingness to perform effectively. Interventions for authentic leadership development can be introduced to improve leadership skills such as self-awareness, relational transparency, balanced processing and internalised moral perspective (Coxen, Van der Vaart, & Stander, 2016). The following recommendations by the U.S Department of Commerce (2011) and research conducted by Al-Asfour and Lettau (2014) advise leaders to provide Millennials with regular feedback, use an information communication method that emphasises the positive and to consistently share information on a regular basis, keeping the Millennials in communication loops. In addition, Al-Asfour and Lettau (2014) advised that leaders be impartial and honest, create clear boundaries, provide mentoring, communicate transparently, be forthcoming regarding expectations, provide various learning opportunities, and also provide well-timed constructive feedback to their employees.

Performance management systems must also be implemented that can provide continuous feedback and coaching on a frequent basis (Özçelik, 2015).

Some suggestions by Ribeiro, Duarte, Filipe, and Torres de Oliveira (2019) to help leaders adapt a more authentic leadership style, they should practice the following:

- Employ behaviours that align with their values.
- Acknowledge errors or mistakes, allowing followers to do this as well.
- Endeavour to become more self-aware of their moral areas of development when there is external pressure.
- Act with respect, sincerity, and convey genuine emotions and thinking to followers.
- Implement an anonymous 360-degree feedback process, which includes superiors, peers and followers to assist leaders to improve decision-making.

Organisations should endeavour to continuously enhance their strategic framework to better understand and maintain individual and environmental characteristics (Redelinghuys, Rothmann, & Botha, 2019). Organisations must adjust their strategies to address the needs of young professionals (Özçelik, 2015). Management and human resource management should endeavour to understand young professionals' motivators and preferences by implementing strategies and interventions that focus on training, development techniques, reward systems, recruitment and selection tools (Özçelik, 2015). These strategies and interventions can enhance person environment fit in the current VUCA work context (Özçelik, 2015; Redelinghuys et al., 2019). Redelinghuys et al. (2019) suggest that organisations have a generic fit initiative rooted in their strategic framework, such as initiatives employed within their recruitment and selection, change management processes, organisational development and training and development.

In addition to this, substantial induction/orientation programmes as well as coaching for newly appointed employees should be implemented to create fit (Janse van Rensburg, Rothmann, & Diedericks, 2017) and consequently increase their psychological meaningfulness. Diversity programmes and training workshops should be implemented in order for young professionals to better understand the differences between people (Janse van Rensburg et al., 2017). This may assist in increasing a culture of fit for young professionals in the organisation. This can be the basis for a healthy and favourable work environment which in turn would lead to better organisational outcomes such as talent retention and performance (Redelinghuys, et al., 2019).

3.4 Chapter Summary

This study investigated the relationship between person-environment fit, authentic leadership, psychological meaningfulness and individual work performance of young professionals in South African organisations. The study revealed that there were positive relationships between the constructs; however, no indirect effects were found between person-environment fit and individual work performance through psychological meaningfulness (positive meaning) or authentic leadership and individual work performance through psychological meaningfulness (positive meaning).

In this chapter, theoretical and empirical objectives were concluded. Limitations and recommendations of the study were discussed and suggested for future practice and research.

References

- Allan, B. A., Duffy, R. D., & Collisson, B. (2018). Task significance and performance: Meaningfulness as a mediator. *Journal of Career Assessment*, 26(1), 172–182. <https://doi.org/10.1177/1069072716680047>
- Arnold, K. A., Turner, N., Barling, J., Kelloway, E. K., & McKee, M. C. (2007). Transformational leadership and psychological well-being: The mediating role of meaningful work. *Journal of Occupational Health Psychology*, 12(3), 193–203. [https://doi: 10.1037/1076-8998.12.3.193](https://doi:10.1037/1076-8998.12.3.193)
- Asiwe, D., Rothmann, S., Jorgensen, L., & Hill, C. (2017). Engagement of employees in a research organisation: A relational perspective. *South African Journal of Economic and Management Sciences*, 20(1), 1–9. <https://doi.org/10.4102/sajems.v20i1.1534>
- Bednarska, M. A. (2017). Does the effect of person-environment fit on work attitudes vary with generations? Insights from the tourism industry. *International Journal of Management and Economics*, 53(1), 65–83. <https://doi.org/10.1515/ijme-2017-0005>
- Blancero, D. M., Mouriño-Ruiz, E., & Padilla, A. M. (2018). Latino Millennials - the new diverse workforce: Challenges and opportunities. *Hispanic Journal of Behavioral Sciences*, 40(1), 3–21. <https://doi.org/10.1177/0739986317754080>
- Darvish, H., & Rezaei, F. (2011). The impact of authentic leadership on job satisfaction and team commitment. *Management & Marketing*, 6(3), 421–436.
- de Crom, N., & Rothmann, S. I. (2018). Demands-abilities fit, work beliefs, meaningful work and engagement in nature-based jobs. *SA Journal of Industrial Psychology*, 44(1), 1–12. <https://doi.org/10.4102/sajip.v44i0.1496>
- Duffy, R. D., Autin, K. L., & Bott, E. M. (2015). Work volition and job satisfaction: Examining the role of work meaning and person-environment fit. *The Career Development Quarterly*, 63(2), 126–140.
- Duffy, R. D., Dik, B. J., Douglass, R. P., England, J. W., & Velez, B. L. (2018). Work as a calling: A theoretical model. *Journal of Counselling Psychology*, 65(4), 423–439. <https://doi.org/10.1037/cou0000276>
- Edwards, J. R., & Shipp, A. J. (2007). The relationship between person-environment fit and outcomes: An integrative theoretical framework. In C. Ostroff & T. A. Judge (Eds.), *The organizational frontiers series. Perspectives on organizational fit* (p. 209–258). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

- Geldenhuys, M., Łaba, K., & Venter, C.M. (2014). Meaningful work, work engagement and organisational commitment. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 40(1), 01-10. <http://dx.doi.org/10.4102/sajip.v40i1.1098>
- Harpaz, I., & Fu, X. (2002). The structure of the meaning of work: A relative stability amidst change. *Human Relations*, 55(6), 639–667. <https://doi.org/10.1177/0018726702556002>
- Ilies, R., Morgeson, F. P., & Nahrgang, J. D. 2005. Authentic leadership and eudaemonic well-being: Understanding leader-follower outcomes. *Leadership Quarterly*, 16(3), 373-394.
- Janse van Rensburg, C., Rothmann, S. S., & Diedericks, E. (2017). Person-environment fit, flourishing and intention to leave in universities of technology in South Africa. *SA Journal of Industrial Psychology*, 43(1), 1–10. <https://doi.org/10.4102/sajip.v43i0.1422>
- Kahn, W. A., & Heaphy, E. D. (2014). Relational contexts of personal engagement at work. In Truss, C., Alfes, K., Delbridge, R., Shantz, A., Soane, E. (Eds.), *Employee engagement in theory and practice* (pp. 96-110). New York, NY: Routledge.
- Kamdron, T. (2005). Work motivation and job satisfaction of Estonian higher officials. *International Journal of Public Administration*, 28(13-14), 1211–1240. <https://doi.org/10.1080/01900690500241085>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., de Vet, H. C., & van der Beek, A. J. (2014). Measuring individual work performance: Identifying and selecting indicators. *Work*, 48(2), 229–238. <https://doi.org/10.3233/WOR-131659>
- Leroy, H., Palanski, M. E., & Simons, T. (2012). Authentic leadership and behavioral integrity as drivers of follower commitment and performance. *Journal of Business Ethics*, 107(3), 255–264.
- Lysova, E. I., Allan, B. A., Dik, B. J., Duffy, R. D., & Steger, M. F. (2019). Fostering meaningful work in organizations: A multi-level review and integration. *Journal of Vocational Behavior*, 110, 374-389. <https://doi.org/10.1016/j.jvb.2018.07.004>
- Matuska, K. M., & Christiansen, C. H. (2008). A proposed model of lifestyle balance. *Journal of Occupational Science*, 15(1), 9–19.
- Nord, W. R., Brief, A. P., Atieh, J. M., & Doherty, E. M. (1990). Studying meanings of work: The case of work values. In A. Brief & W. Nord (Eds.), *Meanings of occupational work: A collection of essays* (pp. 21–64). Lexington, MA: D. C. Heath
- Özçelik, G. (2015). Engagement and retention of the millennial generation in the workplace through internal branding. *International Journal of Business and Management*, 10(3), 99-103. <https://doi.org/0.5539/ijbm.v10n3p99>

- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *65*, 539-569. <https://doi.org/10.1146/annurev-psych-120710-100452>
- Ribeiro, N., Duarte, A. P., & Filipe, R. (2018). How authentic leadership promotes individual performance: Mediating role of organizational citizenship behavior and creativity. *International Journal of Productivity and Performance Management*, *67*(9), 1585–1607. <https://doi.org/10.1108/IJPPM-11-2017-0318>
- Ribeiro, N., Duarte, A. P., Filipe, R., & Torres de Oliveira, R. (2019). How authentic leadership promotes individual creativity: The mediating role of affective commitment. *Journal of Leadership & Organizational Studies*. <https://doi.org/10.1177/1548051819842796>
- Rothmann, S., & Olivier, A. L. (2007). Antecedents of work engagement in a multinational company. *SA Journal of Industrial Psychology*, *33*(3), 49–56. <https://doi.org/10.4102/sajip.v33i3.396>
- Schembari, A. (2018). *The effect of career preparation and perceived proactivity on anticipated person-environment fit*. (Honors Thesis, University of Iowa). Retrieved from https://ir.uiowa.edu/honors_theses/123
- Steger, M. F., & Dik, B. J. (2010). Work as meaning: Individual and organizational benefits of engaging in meaningful work. In P. A. Linley, S. Harrington, & N. Garcea (Eds.), *Oxford library of psychology. Oxford handbook of positive psychology and work* (p. 131–142). Oxford University Press.
- Su, R., Murdock, C., & Rounds, J. (2015). Person-environment fit. *APA Handbook of Career Intervention*, *1*(1), 81–98.
- Vogelsang, K. (2018). *The relationship between person-environment fit, grit, and task performance: A mediation analysis* (Bachelor's thesis, University of Twente). Retrieved from <http://purl.utwente.nl/essays/74453>
- Zhu, W., Treviño, L. K., & Zheng, X. (2016). Ethical leaders and their followers: The transmission of moral identity and moral attentiveness. *Business Ethics Quarterly*, *26*(1), 95–115. <https://doi.org/10.1017/beq.2016.11>