UNTANGLING THE DYNAMICS OF CAREER RESOURCES AND ITS IMPACT ON CAREER OUTCOMES: THE MEDIATING ROLE OF CAREER CRAFTING AND THE MODERATING ROLE OF CAREER SELF-EFFICACY AND TALENT PHILOSOPHIES

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THESIS SUMMARY

The current state of contemporary work environments characterised by high talent volatility has called to question the pronouncement that traditional organisational careers are dead and talent management practices are old-fashioned. This study, therefore, aims to understand how career inducements from the organisation function as resources that, over time, influence individuals' career management and achievement of career-related outcomes. Building on the conservation of resources (COR) theory, this research tests the importance of career resources trajectories – job autonomy, supervisor support and organisation career management – in determining employees' proactive career reflection and career construction for career goal fulfilment. It also investigates career self-efficacy as a personal resource with the potential to moderate the relationship between career resources and career outcomes. Moreover, the harmony between talent and career literature was explored by investigating how a perceived fit between individuals and the organisation's talent philosophies function as a moderator that determines employees' career self-management. This study thus puts forward talent philosophies, a related yet distinct body of research from careers literature, as a theoretically vital construct for understanding individuals' career development. Using cross-lagged and latent growth modelling, the indirect effect of career resources on career-related outcomes through career crafting and the boundary conditions of career self-efficacy and talent philosophy were examined. Using Prolific sample, month-level data across six months was collected from 253 full-time employees in the UK at different organisational levels and from multiple industries. The results showed that dimensions of career crafting at the base level each mediate the relationship between career resources and career outcomes and fit in stable talent philosophy moderate the indirect relationship. Supervisor support was identified as the career resource with the most career-related outcome. This study also found that career self-efficacy and person-organisation talent philosophies fit significantly but differently impact employees' career resources. By longitudinally analysing career incentives at different levels of the organisation as resources, the current study enriches understanding of how career resources influence employees' behaviours and desired outcomes and the complementary nature of career and talent management research.

Keywords: career resources, job autonomy, supervisor support, organisation career management, trajectories, career crafting, career self-management, proactive career behaviours, conservation of resources theory, talent philosophies.

DEDICATION

To my family and friends who encouraged and supported me throughout the course of my PhD studies.

To my dad, for being the world's best.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1. Introduction

Over the years, careers have experienced drastic changes fuelled by globalisation, continuous evolution in technology and the global economy. Instability in job markets has led to the emergence of shorter and more repeated career sequences that require individuals to be principally accountable for their career progress throughout their lives (Greenhaus & Callanan, 2012). As a result, employment contracts have become increasingly transactional and life-long careers in a single organisation have been replaced with boundaryless careers. Individuals who cannot adapt to the complexity of modern careers typically struggle to have a successful career (Zhu, et al., 2013), and businesses strive to achieve competitive advantage over time through continuous improvement of their talent management practices (Crowley-Henry, Benson, & Al Ariss, 2019). Despite the wave for more flexible, individual career models, careers remain more under the control of the organisation than individuals (Dany, 2003). Widespread studies argue that traditional careers are the dominant and preferred employment model for a majority of employees, supported by the expectation for traditional career inducements (Dries & Pepermans, 2008; Dries, Van Acker & Verbruggen, 2012). The premise underlying talent management schemes is that performance, and the display of exceptional abilities will be rewarded with steady advancement in the organisation (Crowley-Henry, Benson, & Al Ariss, 2019). Besides, employees in a position to receive traditional career opportunities are believed to be those who are more competent and well-educated with high strategic value (Dries, Van Acker & Verbruggen, 2012). Therefore, organisational leaders implement developmental career and talent management practices to leverage their human capital effectively.

Career and talent management practices are seen as part of high-performance, high-commitment work schemes aimed at enhancing employees' growth and abilities and providing satisfying work environments that competing employers find challenging to replicate (Ito & Brotheridge, 2005). While there are undoubtedly a variety of inducements offered by the organisation (i.e., career and talent management practices), management researchers have established that the schemes reviewed as efficient in enhancing employees' abilities and motivation include the encouragement of autonomy or discretion in task performance, supervisory support for career development and organisational support programs ((Ito & Brotheridge, 2005; Jung & Takeuchi, 2018). Thus, inducements are a critical resource provided in the work context that helps individuals prepare, be confident and cope better with the demands of modern careers. Although career inducements and talent practices are not static and may change over time, studies empirically examining their dynamic effect are non-

existent. This is surprising because career management support arising from the organisation is categorised as an essential resource with a multiplicative potential, considered most effective for individuals to achieve work or career-related goals (Jung & Takeuchi, 2018) (Conway et al., 2016). More so, scholars affirm that organisational investments translate into individual accomplishments in a dynamic process, which is the starting point for future career development (Bagdadli & Gianecchini, 2019). Yet, research examining how and why organisational support for career development translates into employees' career success and other related career goals has largely been overlooked. Investigating this process is critical to overcome the primarily descriptive approach to studying career resources.

Career resources - defined as anything that aids the fulfilment of individuals' career aspirations (Halbesleben et al., 2014) - are receiving increased attention as essential antecedents of career success. Prior research in this domain has tended to focus on career adaptability and career competencies as crucial resources for developing one's career. According to Savickas & Porfeli (2012), individuals' capacity to manage unconventional and complex vocational-related problems depends on their career adaptability resources. Similarly, Akkermans and colleagues (2013) presented career competencies comprising long-term awareness of oneself, effective communication with significant others and proactivity as central to career development. To integrate constructs in the literature that share several commonalities with career adaptability and career competencies, Hirschi (2012) proposed a framework of four critical career resources - psychological resources, identity resources, human capital resources, and social resources. Hence, existing studies have concentrated on the initially proposed career resources (Hirschi, 2012), motivational career resources (Hirschi, 2012; Hirschi et al., 2018) and career adaptability resources (Haenggli & Hirschi, 2020). While research on career resources is still nascent, empirical evidence on diverse components and usefulness of career resources and the effects they produce are limited. This line of inquiry is vital because, as indicated by career scholars, the obtainable career resource frameworks are only some of the many resources that support effective career management (Hirschi, 2012; Haenggli & Hirschi, 2020). Resources offered at the personal, team and group levels of the organisation are shown to kindle employees' growth, learning and development and play both intrinsic and extrinsic motivational roles (Demerouti et al., 2001; Schaufeli & Bakker, 2004; Xanthopoulou et al., 2007). Hence, employees working in organisations that provide adequate discretion with work tasks, support with career development and activities associated with upward advancement on the corporate ladder emphasise the critical role of employer-supported career resources in facilitating sustainable careers (De Vos et al., 2019; Van der Heijden et al., 2020).

Furthermore, scholars have discussed the critical role of organisational inducements in understanding employee attitudes towards their careers (Dries, Van Acker & Verbruggen, 2012). The argument is that these developmental initiatives reflect both an employee's effort at career self-management and integrate individuals' career plans with organisational opportunities (Eby, Allen, & Brinley, 2005). Given that organisational and individual career management co-exist in contemporary organisational contexts, it is essential to identify and understand the individual actions that translate organisational inducements (i.e., career resources) into career-related outcomes. According to Spurk, Hirshci, and Dries (2019), people develop resource management behaviours to optimise existing resources, cope with difficulties in their current career context and attain career success. In other words, individuals' ability to access and utilise available resources in the organisation rests mainly on their resource investment behaviours. Studies have identified different career self-management behaviours, such as networking, self-presentation, positioning and visibility, that explain the relationship between organisational investment in career management and career success (Gould & Penley, 1984; Sturges et al., 2002; King, 2004). Until the recent introduction of career crafting into careers literature (De Vos, Akkermans & Van der Heijden, 2019), studies on career self-management behaviours have primarily been developed in isolation. This study thus advances the understanding of career crafting by examining it as the connecting rod between career resources and career-related outcomes. It attempts to test a more comprehensive model, where not only the antecedents of career crafting are examined but also the effects. This follows the proposition that career crafting may be the explanatory mechanism for relating career resources with career outcomes (Hirschi et al., 2018). Career crafting represents a resource-building strategy for proactively managing one's career and enhancing career outcomes (De Vos et al., 2019). Due to the dynamics of personal needs and contextual factors, employees have to continuously craft their careers to achieve person-career fit. Therefore, it is insightful to investigate how the dimensions of career crafting - proactive career reflection and career construction - as forms of resource management behaviours facilitate the deployment of career resources towards the achievement of career-related outcomes.

To explain the relationship between career resources and employees' career crafting, as well as between career crafting and individuals' career-related outcomes, this study builds on the conservation of resources (COR) theory. As conservation of resources theory is developed on the basis of the resource construct, it provides a theoretical framework for understanding how career inducement arising from the organisation are vital resources that enable employees to engage in proactive or career self-management behaviours to achieve their career-related goals (Hobfoll, 2002; Halbesleben et al., 2014). COR theory is a motivational

model that explains human behaviour organised around the need to strategically acquire, invest, and conserve resources as a means for survival (Holmgrenn et al., 2017). These resources may be objects, conditions, personal characteristics or energies that are valued by individuals or serve as a means of obtaining valued ends (Hobfoll et al., 1990). By extending the conservation of resources theory to the domain of career management, this study argues that one way to boost and sustain individuals' career management is to build up their social and personal resources. Such resources may not only have a positive impact on career self-management but may also, through these proactive activities, produce positive career-related outcomes. It also provides additional insight into the proactive behaviours individuals exhibit in acquiring new resources and optimising their remaining resources (Hobfoll, 2001). This theory suggests that the relationship between career resources and career crafting, and career crafting and career outcomes may be explained through resource acquisition, resource conservation and resource investment motives. At high levels of organisational career inducements or career resources, employees are likely to perceive abundant resources to acquire more resources through career crafting to achieve their valued goals of career outcomes. Fluctuation of resources is a natural part of COR theory, and its definition of resources (Halbesleben et al., 2014), and longitudinal designs have been employed in studies on talent and career management practices (Sturges et al., 2002; Xanthopoulou et al., 2009; Saridakis, Lai, & Cooper, 2014). Still, the processes through which these practices fluctuate over time are yet to be directly addressed. Central to COR theory is the loss and gain cycles of resources whereby initial loss may create a chain of decreased resources, and available resources may strengthen each other over time in a dynamic process (Hobfoll, 1989, 2002). In other words, resources do not exist in isolation but have considerable impact on each other. Applied to the career management process, gain cycles mean that employees who gain more career inducements will exert high levels of career crafting, and as a positive motivational state, these proactive career behaviours will promote the achievement of career-related outcomes. Thus, from the perspective of COR theory, this study advances the understanding of resource processes and fluctuations by investigating the effect of career resource trajectories at the individual (job autonomy), team (supervisor support) and organisational level (organisation career management) for enhancing the achievement of diverse career outcomes through the dimensions of career crafting.

This thesis also sets out to investigate the personal and contextual conditions that enable individuals to utilise available resources towards their career-related goals. From the perspective of COR theory, employees can achieve their career aspirations through resource investment and gain cycles based on their personal resources (Grimland, Vigoda-Gadot, & Baruch, 2012; Wang, Chen, & Lu, 2020). Personal resources in this context refer to individuals'

sense of ability to control and influence their environment successfully (Hobfoll et al., 2003). Based on this definition of personal resources, this study presents career self-efficacy as a crucial personal resource available to employees to achieve their career-related outcomes. Career self-efficacy is defined as individuals' belief in their ability to make a career successfully (Bandura, 1977). Scholars gather that self-efficacy is one of the most important positive self-evaluations and traits related to individuals' development (Pan, Sun, & Chow, 2011). According to Tims and Bakker (2010), the possibility of a work situation stimulating proactive behaviours is contingent on the individual's personal resources or characteristics. For example, Griffin, Parker and Mason (2010) found employees' self-efficacy to moderate the relationship between the supervisor's vision and subordinates' proactivity. Also, research shows that individuals with higher levels of self-efficacy exert more effort to take initiative and, therefore, have greater outcome expectations (Pan, Sun, & Chow, 2011). These empirical pieces of evidence infer that individuals with different levels of self-efficacy vary in their use of career resources. Thus, the extent to which career resources result in career outcomes, such as career success, internal employability and psychological contract fulfilment, may depend on individuals' career self-efficacy. By examining career self-efficacy instead of generalised self-efficacy, this study aims to utilise a better-fitting boundary condition to the career context in explaining the relationship between career resources and career outcomes.

This study seeks to not only understand the personal resources that interact with career resources but also the impact the work environment has on the theorised relationship. As careers are not nurtured in a vacuum, it is essential to understand organisational conditions that create room for employees to direct their career development. Research indicates that employees' responses to talent management practices or organisational inducements are determined by identity information – whether they are 'valued in-group or relegated out-group members' (Dries, Marescaux, & Van Zelderen, 2022). In other words, when employees have high identification with the organisation measured by a similarity between one's identity and the organisation's (Van Knippenberg & Sleebos, 2006), the impact of the abundance of career resources on career crafting and career outcomes may be more assertive. Since talent philosophy defines how employees self-identify with their organisation (Meyers & Van Woerkom, 2014), talent philosophy is proposed as an important contextual condition with the potential to facilitate employees' proactive career reflection and career construction based on their access to individual, team and organisation-based resources. Talent philosophy is the overarching values and guiding principles for talent activities that determines how talent is defined, who is considered a talent, the value ascribed to talent, and how talent practices are used to enhance individual and organisational performance (Meyers et al., 2020). This is different from talent management – the process through which organisations anticipate and

meet their talent needs in strategic jobs (Cappelli & Keller, 2014) or human resource management – the strategic and coherent approach to the management of an organisations' members to individually and collectively contribute towards the business goals (Armstrong, 2006). Essentially, studies integrating career concepts with talent management have paid more attention empirically to TM practices and talent status. Less attention has been drawn to talent philosophy upon which other TM constructs such as workforce differentiation, talent status, talent management objectives, programs and practices are defined, designed and implemented (De Vos & Dries, 2013; De Boeck, Meyers, & Dries, 2018; Cerdin, Liao, & Sharma, 2020; Redondo, Sparrow, & Hernandez-Lechuga, 2021). By progressing research on the connection between career and talent management through the lens of COR theory, this study seeks to understand how individual and contextual resources interact in affecting career crafting behaviours and career-related outcomes. According to Federici and colleagues (2021), individuals with high resources that enable them to engage in proactive actions have the awareness to explore alternative opportunities when assessing their fit with their environment. Likewise, these individuals believe they can activate the resources and activities required to achieve their desired career outcomes (Restubog, Florentino, & Garcia, 2010). Hence, career self-efficacy and perceived (mis)fit between employees and the organisation's talent philosophy may play a role in shaping individuals' career crafting behaviours.

1.2. Motivation and Research Problem

The inspiration for conducting this research comes from own experience of implementing career inducements and talent management practices in an increasingly volatile environment, such that employees' perception of an abundance or shortage of these incentives created more negative than positive reactions. Essentially, challenges experienced at work and in nurturing a successful career in the organisation were mostly associated with individuals' conflict with company's values and difficulties with supervisor. Although feedback reviews suggested that employees tend to be more engaged when given opportunities for career progression and development, career dissatisfaction and voluntary turnover remained a big issue. The difficulty in obtaining well-defined reasons for these outcomes thus renders these research findings useful for career counsellors, talent and human resource practitioners. Furthermore, with globalisation, market intensification and unstable workforce, talent competition is more intense, such that obtaining and retaining skilled individuals is once again becoming a priority for organisation – a goal that in the long run can be achieved with aligned and effective career management strategies. For example, career resources foster individuals' engagement at work, positive perception of their capabilities and enhances employees' abilities to act in the work environment (Bakker & Demerouti, 2008). Thus, organisational

career development practices (i.e. career resources) could meet the emerging demands of employees and business objectives.

Careers as an organisational concern that relates to talent management practices have been theoretically recognised in the literature (Dries, Marescaux, & Van Zelderen, 2022) however, empirical studies on the process through which these career and talent management practices create their effect on employees' career self-management and career outcomes is limited. These practices include a wide range of programs and interventions that are arguably critical resources for supporting individuals' career development. As such, limited empirical knowledge exists to explain how organisationally attributable support or interventions function as career resources that have dynamic effects on individual career outcomes. Also, the underlying mechanism through which career resources over time influence career outcomes is yet to be empirically established in the career literature. Since organisational and individual career management co-occur in current organisational contexts, it is pertinent to investigate the career management behaviours and organisational career programs implemented and their differentiated impact on employees' career outcomes. Interestingly, talent and career management research has been conducted in a wide range of organisations; still, the effect of contextual conditions and agency (i.e., personal characteristics) has been underexplored. Therefore, the overarching problem addressed in this research is:

How do career resources at different levels of the organisation over time produce their effects on employees' career-related outcomes?

To answer this question, the following empirical research questions were developed to address the identified gaps in the literature:

(1) How do career resource trajectories evolve dynamically among employees?
(2) Which career resource is most impactful for career-related outcomes such as career success, internal employability, career commitment, and psychological contract fulfilment?
(3) Do the dimensions of career crafting as mediating mechanisms have joint or differentiated effects on employees' career outcomes?
(4) To what extent could career self-efficacy as a personal resource strengthen the relationship between the abundance of career resources and the attainment of career-related outcomes?
(5) To what extent is person-organisation talent philosophy fit likely to interact with career resources towards the realisation of career-related outcomes?

In order to address the research questions outlined above, I provide reviews of the careers and talent management literature and longitudinally analyse the relationship between career resources, career crafting and career outcomes, supported by the conservation of resources theory. I also test the interacting potential of career self-efficacy and talent philosophies with career resources in advancing understanding of contemporary career contexts.

1.3. Research Aims and Objectives

The role of talent management practices and organisational support programs have been widely studied, with limited evidence of how these incentives act as crucial organisational resources that impact employees' perceptions, reactions, and outcomes towards their chosen careers. This research therefore sets out to advance understanding of what constitutes career resources. Career resources at different levels of the organisation were longitudinally investigated to ascertain if individual and organisational career management practices interact to produce a range of vital and positive career-related outcomes across different organisations.

The specific objectives of this research are:

1. To investigate the resource component of job autonomy, supervisor support and organisational career management across multiple organisations in the UK
2. To present and test career satisfaction, career commitment, internal employability, turnover intentions and psychological contract fulfilment as career outcomes crucial to employees' chosen careers.
3. To apply conservation of resources theory to the career field by determining how organisational and individual resources boost and support individuals' career management activities.
4. To examine career crafting as the resource management behaviours for which career resources lead to career outcomes.
5. To explore career self-efficacy as a personal resource and talent philosophy as a contextual condition and how they each influence the relationship between career resources and career outcomes

1.4. Research Contributions

This study aims to make several theoretical, empirical, and practical contributions to the career literature. First, recent studies on career management have predominantly focused on the boundaryless forms of career that challenge traditional-organisational career management practices. According to career scholars, the traditional view of organisational career or talent

management is “a false promise used to keep valuable employees in organisations” (Baruch & Peiperl, 1997, p.356). As such, the principle underlying talent management objectives, that inducement and practices such as challenging tasks, career development and increased support will enhance commitment and personal and professional development, is evidently undermined (Truss et al., 1997; Thunnissen, 2016). This study thus seeks to shed light on the complementary nature of talent and career pieces of literature by preserving organisational careers and organisational career management practices as an important means of enhancing employees' career outcomes. Specifically, this study suggests that individuals who receive high levels of organisational career practices or inducements - representing career resources from the organisation - are more capable of coping with the challenges of modern careers because they can use and invest their resources to achieve their career goals. According to the conservation of resources theory (Hobfoll, 2002), people are motivated to protect their current resources and acquire additional resources to achieve valued goals. One unique aspect of COR theory is its emphasis on the dynamic nature and fluctuation of resources over time, whereby personal and social factors have an impact on increasing further resource gains. This element of COR theory is consistent with the proposition of Bagdadli & Gianecchini (2019) that many career management practices have cumulative potential. By focusing on gain spirals across six waves of data, this study illuminate scenario where individuals with an initial level of resource are able to gain additional resources, implying an accumulation effect. Moreover, Hirschi and colleagues (2018) recently reinforced the need for scholars to explore how career resources develop over specific periods of time and how these repeated sequences form developmental trajectories. This study thus seeks to address this call by examining how career resources - job autonomy, supervisor support and organisation career management - dynamically shape employees’ career-related outcomes using longitudinal research designs.

Second, this study presents career crafting as the individual’s career management process in the pursuit of career-related goals. Career crafting involves the proactive behaviours individuals perform to optimise person-career fit, making it a valuable construct for studying employees’ involvement in self-managing their careers. Although scholars have shown that (psychosocial) career resources are positively related to career success (Haenggli & Hirschi, 2020), it remains unclear what the underlying mechanisms are that explain this relationship. This study contributes to this research theme by applying COR theory, which conceptualises individuals as active agents, to show how the dimensions of career crafting act as a linking pin between career inducements (i.e., career resources) and career-related outcomes. Specifically, proactive career reflection and proactive career construction are presented as co-occurring mechanisms through which employees with developmental

trajectories in job autonomy, supervisor support and organisation career management achieve their career-related goals. It is proposed that when employees gain these organisation-based career inducements or resources, they invest their personal resources by engaging in career self-management behaviours of career crafting to achieve their career goals. Studies have shown that proactive career reflection and proactive career construction are positively affected by employees' personal factors, such as intensified career planning and decision-making (Nalis, Kubicek, & Korunka, 2022) and career satisfaction (Haenggli & Hirschi, 2020). Little is known about the role organisational factors play in stimulating career crafting. With the rapid changes in contemporary careers resulting in more fluid career processes and the evolution of individuals' needs, values and abilities, career crafting as a career-oriented proactive behaviour is gaining more attention (Ge, Gao, & Yu, 2023). Also, employees want to believe that their careers are personal to them; as such, efforts to shape the course of their careers provide them with a sense of agency. Yet, empirical research on the drivers and effects of career crafting is limited. It is still unclear how organisations can promote proactive career behaviours (Sylva, Mol, Den Hartog, & Dorenbosch, 2019). This study thus fills this gap by using COR theory to explain the relationship between career resources and employees' career crafting and between career crafting and individuals' career outcomes.

Third, this thesis broadens the scope of self-efficacy application in careers research by exploring the moderating effect of career self-efficacy on individuals' career self-management and career outcomes. It emphasises the interaction between personal disposition and contextual conditions as powerful determinants of self-initiating career management and career outcomes. Careers studies have tended to rationalise career outcomes using individual difference factors that govern how employees perceive and enact their careers (Ballout, 2009). Career self-efficacy is one of such individual difference constructs arising from the build-up of individuals' past experiences with success and failure (Pan, Sun, & Chow, 2011). Examining career self-efficacy instead of generic self-efficacy within the career context provides a better understanding of the synergy between individual and organisational career management activities. It also extends limited empirical research on the effect of proactive career behaviours when career self-efficacy resource is present. Extensive studies exist on the impact of self-efficacy beliefs on task performance, career choices and career success (Day & Allen, 2004; Ballout, 2009; Spurk & Abele, 2013). Based on the proposition from COR theory, career self-efficacy is defined as a personal resource, such that high career self-efficacious employees with developmental career resources may maintain and invest these resources through career crafting towards their desired career outcomes. Individual differences in anticipating and coping with potential changes in the work environment will likely influence one's resource pool. Thus, this thesis advances existing research on self-efficacy by

exploring career self-efficacy as a moderator in the relationship between career resources and career outcomes.

Fourth, this study further makes a valuable contribution to the careers and talent literature by being one of the first to propose employees' perceptions of talent philosophies as a critical moderating factor that may impact the relationship between career resources and career outcomes. Over the years, the focus has been on employees' reactions to (not) being awarded talent status, as these are shown to determine the success or failure of talent management programs (De Boeck, Meyers, & Dries, 2018). However, talent status offers an incomplete understanding of the factors that shape employees' reactions to talent management practices. For example, previous studies have suggested the necessity of exploring different talent philosophies as defined by an organisation's key decision makers to understand their influence on employees' behaviours and outcomes (Meyers & Van Woerkom, 2014; Meyers et al., 2020). A related research theme – organisational identification - is also shown to facilitate the effects of organisational practices on individual outcomes and enhance self-motivation (Bjorkman et al., 2013; Wikhamn, Asplund, & Dries, 2021). Perception of oneness with an organisation is argued to be the most salient cue for employees, who are shown to respond better to the signals the organisation sends through career inducements and practices (Malhotra, Sahadev, & Sharom, 2022). Still, not much attention has been paid to the role of contextual influences with the potential to facilitate or attenuate individuals' career behaviours and outcomes. Despite the advocacy for self-directedness and personal agency, scholars suggest that career management remains an organisational concern related to continuity and broader strategic objectives (Dries et al., 2012). Thus, by exploring the influence of perceived similarity between individuals and the organisation's talent philosophies on employees' career behaviours and career outcomes, this study adds to the limited empirical literature on how talent and career management are indeed harmonising. It also develops a better understanding of the contextual conditions that may regulate the impact of career resources.

Finally, from a practical standpoint, career management practices are just as important for employees as they are for the organisation. The recent economic crisis amplified by the Great Lockdown emphasises the need for individuals with increased self-directedness to drive the strategic objectives of organisations. As employers implement talent and career management policies focused on selecting and recruiting employees with appropriate self-management behaviour, so should they promote their career development within the organisation and not elsewhere. Besides, demands are a vital part of modern career development; however, demand should not exceed individual thresholds as it may lead to less

career proactive and career goals attainment. Therefore, it is crucial for organisational leaders to provide adequate career inducement or resources to cushion the effect of career demands. Because career resources may exert their influence over time, companies may consider the role of time when designing and implementing their organisational career practices. According to Caesens, Stinglamber, and Ohana (2016), promoting and maintaining support from the organisation requires continuous effort. Thus, employers may consider promoting career and talent management practices, such as supervisor support and organisation career management, that signal strong and recurring cues of support. Additionally, decisions on organisation-led career management practices may target the outcomes they aim to promote (e.g., career commitment and internal employability). Hence, special attention may be given to organisational career practices such as supervisor support and individual career behaviours such as networking with the potential to exert a detrimental effect on individuals' employability and turnover intentions. This study also reinforces the role of different actors in shaping individuals' career management. Supervisors are frequently responsible for managing employees' career development and, thus, their behaviours in the organisation. Supervisors are shown to profoundly impact individuals in reaching their career goals (Allen, Eby, Poteet, Lentz, & Lima, 2004). For example, individuals' perception of fit with the organisation is contingent upon how information is effectively communicated by its gatekeepers (Stazyk & Davis, 2021). Likewise, when supervisors and subordinates share similar values, supervisors are more likely to provide subordinates with opportunities and challenging assignments to be successful in their roles. Therefore, employers may need to pay more attention to the activities of supervisors and identify instances where their mental models, shared information and actions are detrimental to employees' career progression in the organisation. This thesis thus offers employers a deeper understanding of the personal characteristics and contextual conditions under which traditional organisational career management practices are most likely effective for fostering career self-management and career goal achievement. Ultimately, this study provides scholars and practitioners with vital insight into the process by which career resources influence career-related outcomes.

1.5. Thesis Structure

This thesis is sectioned into six major chapters. Following this introduction, Chapter 2 discusses the careers literature. In particular, the chapter provides a historical overview of career management. Also, the topic of career resources, alongside the three outlined resources of this study, is reviewed and discussed in detail because of its significance to this thesis. Gaps in the literature and the outlined research questions were deduced from these reviews. The chapter concludes with a discussion of the conservation of resources theory as

the main theoretical framework underpinning the relationship between career resources and career outcomes.

Chapter 3 provides the conceptual model of this thesis. It then focuses on the model development by developing and presenting the hypotheses to be tested. The chapter closes with a presentation of the exploratory moderating role of career self-efficacy and talent philosophies in the relationship between career resources and career outcomes.

Chapter 4 details the philosophical paradigm of the research methodology used in this study. Equally, the research design, sample, measures, procedure, and analytical techniques are provided. It concludes with the ethical issues addressed in this study.

Chapter 5 is dedicated to presenting the overall findings of this longitudinal study and discussing the results obtained.

Chapter 6 summarises the key findings, contributions and implications for researchers and practitioners. Next, the limitations and future directions of this study are identified. This final chapter closes with an overall conclusion.

CHAPTER TWO: REVIEW OF THE CAREERS LITERATURE

2.0. Chapter Summary

This chapter explores the evolution of research on careers. Specifically, the definition of careers, the development of career management and the theoretical frameworks that underpin the changing nature of careers over the years. This chapter subsequently discusses the more recent focus on resources in the careers literature and introduces the conservation of resources theory as the theoretical basis for confounding the subject of resources. Spotlight is therefore placed on career resources and their role in stimulating varied career self-management activities and outcomes. Career resources, as defined within the conservation of resources framework, lays the foundation for the development of the hypothesised model of this thesis.

To trace the development of career in organisations and identify how career management has been discussed over time, relevant literatures from the early 2000s to 2023 were sourced from google scholar and Aston University Smart Search using key words such as career, career development, career management, talent management, career success, career self-management, organisation career management, career inducements, career resources and career outcomes. This line of search was driven by the overarching research question of this study: 'how do career resources at different levels of the organisation over time produce their effects on employees' career-related outcomes'? Next, articles in journals with the most publications about careers such as Journal of Vocational Behaviour, British Journal of Guidance & Counselling, Journal of Applied Psychology, Journal of Career Assessment, Journal of Career Development, Career Development International, Human Resource Management Review and The International Journal of Human Resource Management were shortlisted. As indicated by Spurk (2021) and supported by evidence, vocational behaviour research is synonymous with career research, thus Journal of Vocational Behaviour was assessed as an informed source of referenced articles. Based on the evolution in the literature of career management being the responsibility of the employer, to that of the employees and now debate regarding the joint responsibility of both parties, the chronological structure of this study's literature review was developed. Beyond the structure, a chronological literature review allowed for a broader understanding of the career field, identifying shortcomings of previous research and clearly seeing how to progress existing research.

2.1. Historical Overview of Career Management

A career is a sequence of activities connected with work-related experiences over one's lifespan (Hall, 2002). It is the progression of a person along a path of jobs, occupations

and positions spanning one or more organisations (Baruch & Rosenstein, 1992; Super, 1963). These definitions of a career encompass the prospect of different types of employment, for instance, self-employment and temporary roles across organisational boundaries (Yarnall, 2008). It also includes work-related decisions, activities, and beliefs about one's work values and experiences (Greenhaus et al., 2009). The blanket term for this work-related activities and experience is career management, defined as a process of individuals' actions that outline their career goals and transitions (Wang & Wanberg, 2017). It comprises the activities assumed by both the individual and the organisation in directing the employee's career (Sturges et al., 2005). Career management involves people recognising their career interests and skills strengths, deciding on a career choice and executing strategies aligned with achieving career success. The immense attention on career management is due to its usefulness in understanding the elementary relationship between people and work, which is essential for academics and professionals (Greenhaus et al., 2009).

Research has tended for the last ten decades to focus on the changing nature of careers. For example, the agricultural economy of the 1800s saw careers being socially instituted such that young people typically inherited the occupations of their parents (Savickas, 2000). People born on farms became farmers, and children of blacksmiths followed the same calling. Work, education and family were intertwined, with the family being the most important social institution. By the early 1900s, career choice and interest management focused on measuring individual differences in understanding the issue of vast unemployment and relocation following the Great Depression (Wang & Wanberg, 2017). In these early years, Parsons (1909) introduced the person-environment (P-E) fit model in his tripartite model of vocational selection that emphasised the need for an alignment between people's abilities and their work and the significance of self-knowledge, occupational knowledge and decision-making (ibid.). Parson's outline for successfully choosing a career was the first conceptual framework for career decision-making (Brown, 2002).

Soon after, the purpose and responsibility for career management evolved. The economic boom following the end of World War II created a wealth of job opportunities and a demand for human capital. A career in this era consisted of a relational psychological contract, upward mobility, perception of a job or profession as a calling and a lifelong relationship with one organisation (Greenhaus et al., 2009). Careers were relatively stable and allowed for upward movement within the organisation until retirement, such that career success was defined by rising advancement on the corporate ladder (Savickas, 2000; Spurk, Hirshci, & Dries, 2019). Career progression was also measured against individuals' age and grade level. This era saw the introduction of two enduring models: the lifespan and life-space theory of

careers. These theories provided rich frameworks for understanding career choices, interests and the development of individuals' careers through their life span. Levinson's (1978) life stage developmental model focused on age-determined career changes, and Super's (1957) lifespan model viewed career development as movement across progressive stages with associated activities over one's life span. The lifespan position saw development as an adaptation process of growth, decline and stability across life experiences (Baltes, 1997). It was also expanded to recognise age-related changes in abilities, personal development, and goals (Baltes et al., 1999). Both theories centre on adult life as a progression of stages, each requiring developmental tasks (Nagy, Froidevaux, & Hirschi, 2018). According to Levinson, the life cycles last about twenty-five years and develop through a chain of eras divided into (1) pre-adulthood: age 0-22, (2) early adulthood: age 17-45, (3) middle adulthood: age 40-65, and (4) late adulthood: above age 60 (Levinson et al., 1978). Early and middle adulthood eras were necessary to shape and influence people's career decisions, transitions, and goals (Nagy, Froidevaux, & Hirschi, 2018). In contrast, late adulthood was generally conceived as a phase for occupation withdrawal and disengagement (Sullivan, 1999). The late adult phase also includes the continuous growth and decline associated with building a structure following one's retirement from work (Nagy, Froidevaux, & Hirschi, 2018). Levinson's idea of older workers retiring from work, also depicted by Super, reflects the traditional expression of occupation as one where people spend their entire career in one or a limited number of organisations.

By the late 1980s, organisations became more unstructured due to increased strategic changes, delayering and rightsizing. The changes in the structure and distribution of work in organisations were followed by a decline in job security, increased research interest in job search processes and a shift from employer-led careers to self-managed careers. The prospect of a continuous lifelong career with one employer began to fade. Career management was seen as advancing business needs through improved development programmes for outstanding employees. The effectiveness of career management was therefore measured by an organisation's ability to attract and retain high-quality talents for the continuous survival and growth of the business and the achievement of strategic goals (Yarnall, 2008). It was believed that if you hire the right people with the right fit, then organisational success is assured (Brousseau et al., 1996).

Since the late 1990s, how organisations conduct business and manage human resources have been impacted by economic turbulence, technological advancement and global competitiveness. Work decisions and activities are more fast-paced and spontaneous, and career management activities have fully devolved from employer-managed careers to

self-managed careers (Callanan, Perri, & Tomkowicz, 2017). Employers can no longer offer employees a job for life nor guarantee a predictable upward trajectory within the organisation; what is obtainable is lateral or horizontal movement (Sturges et al., 2005; De Vos et al., 2008). Instead of providing promotion and job security in exchange for performance and loyalty, organisations now offer adaptable and self-developing employees opportunities for professional expansion. Likewise, employees no longer trust that their future progression can be limited to one organisation, as evidenced by increased voluntary exits. They swiftly switch employers when their expectations are unmet and are believed to prioritise meaningful work, challenging assignments, job autonomy and work-life balance over promotions (Yarnall, 2008). It is projected that within this new wave of career management, people will work for seven to twelve different employers during their lifetime (Greenhaus et al., 2009). The study of careers in the 21st century has equally seen the development of new outlooks about careers composed of protean and boundaryless approaches. The protean career championed by Hall (1976) centres on a career characterised by continuous learning, self-directedness and value-driven career orientations. Individuals that adopt protean career attitudes rely on their values rather than organisational inducements to attain their desired career progression and success (Wang & Wanberg, 2017). This group of people are independent in their vocational behaviour and adaptable to changing work environment and demands (Briscoe & Hall, 2006). Although they may require some form of job mobility, protean career orientations focus more specifically on the mindset about the career toward personal values, growth and autonomy (Briscoe et al., 2006). It involves developing a set of beliefs about one's career, identifying an ideal career and displaying behaviours aligned with the chosen career (Briscoe & Hall, 2006).

Just as the protean career focuses on the individual's independence from the context, boundaryless careers are the opposite of organisational careers (Arthur & Rousseau, 1996). This career orientation revolves around the principle that careers transcend physical and occupational boundaries (Briscoe et al., 2006). Career progression is no longer limited to one organisation; individuals engage in jobs, companies, occupations and geographical mobility for personal goals, family circumstances, or career influences. The motivational power of job security decreases as development, status and interest increase (Segers et al., 2008). Boundaryless career also encompasses psychological mobility, that is, an individual's mindset about their ability to make the desired transition, pursue career-related networks across the globe and explore developmental opportunities outside the job (Sullivan & Arthur, 2006). It is argued that this mindset and the associated behaviour of crossing boundaries flourishes in independent thinking (Bird, 1994). In other words, the greater an individual's career capability, the higher the possibility of experiencing psychological and physical mobility (Wang et al., 2013). Both the protean and boundaryless models emphasise the responsibility of people to

direct their career progress and achieve personal goals independent of the organisation. They conceive career development and decision-making as a process of continuous alteration shaped by the individual instead of a progression along a life stage (Zacher & Froidevaux, 2021). Individuals with boundaryless mindsets are believed to possess protean attitudes, thus, establishing the notion of career self-management (Briscoe & Hall, 2006).

In progressing the new forms of careers replacing the 'traditional' organisational career, emphasis began to be placed on issues of career choice and career success as explained by the development theories. Career construction theory (CCT) focuses on people's unique experiences and vocational behaviour as they create their subjective careers (Savickas, 2013). It examines individuals' psychosocial resources in self-managing job demands, transitions and trauma (Rudolph, Zacher, & Hirschi, 2019)(Rudolph, Zacher, & Hirschi, 2019). Career construction theory also explores how people fuse their personalities into their work roles. It is argued that the inclination and ability to adapt to changing environmental circumstances vary across individuals (Rudolph, Zacher, & Hirschi, 2019). In other words, when people are willing to change and have the required psychosocial resources, they respond to contextual changes better, which produces positive outcomes (Tokar, Savickas, & Kaut, 2020). Moreover, proactivity and adaptability have been identified as essential traits for piloting heterogeneous career paths in the changing landscape of 21st-century careers (Berg, Wrzesniewski, & Dutton, 2010). This is because vocational development is facilitated by continuous adaptation to the social context along the career stages, from growth to disengagement (Savickas, 2002). CCT, therefore, explains the contemporary process of vocational development in one's life span using dimensions of adaptivity, adaptability, adapting and adaptation. Adaptivity refers to the personal traits that represent one's willingness to respond to work tasks, occupational transitions, and traumas. Expectedly, adaptivity facilitates the development of career adaptability resources (Savickas, 2013; Sverko & Babarovic, 2019). Career adaptability is the psychosocial resource for managing complex issues, vocational tasks, occupational transitions, and work ordeals. It involves concern about one's career future, control in preparing for the future, curiosity in discovering what the future self could reveal, and confidence to go after these aspirations (Sverko & Babarovic, 2019). The four dimensions of concern, control, curiosity and confidence represent the adaptability resources (Savickas, 2013). Adapting denotes the behaviours that tackle changing career conditions and career-related decisions (Hirschi, Herrmann, & Keller, 2015). Adaptation, referred to as career outcome, is goal-directed. It signifies the harmonisation between personal needs and environmental opportunities in the forms of, for example, career satisfaction, increased performance, and well-being (Rudolph et al., 2017).

Altogether, career construction theory reaffirms the subjective nature of careers which is essential to impose meaning and direction on individuals' vocational behaviour.

As with earlier theories that emphasise people as active agents in shaping their careers, social cognitive career theory (SCCT) is anchored within the social cognitive theory (SCT), which highlights individual differences and self-regulatory processes as the guide for psychological functioning (Bandura, 1991). One aspect of SCT that has been dominantly explored is self-efficacy (Wang & Wanberg, 2017). Self-efficacy is individuals' beliefs regarding their capabilities to activate cognitive resources to meet demands in a specific context (Wood & Bandura, 1989). These perceptions are categorised as systems of personal agency that help people determine their courses of action in the face of difficulties (Lent, Brown, & Hackett, 1994). Self-efficacy is shown to incite performance and has been identified as a critical architect of career development (Hackett & Betz, 1981) (Hackett & Betz, 1981). SCCT provides a framework to understand, describe and predict people's actions to develop their career interests, make occupational choices and achieve career success (Lent, Brown, & Hackett, 1994). It posits that people can exercise self-direction in career development through self-efficacy beliefs, outcome expectations and personal goals (Lent, 2013). While self-efficacy focuses on an individual's capabilities, outcome expectations are concerned with the envisioned result of an action. Both self-efficacy and outcome expectations guide human behaviour (Bandura, 1986). On the other hand, personal goals refer to a person's objective for engaging in an activity and reflect an individual's agency within personal and occupational domains. Positive pursuit of one's goal nourishes self-efficacy beliefs and outcome expectations (Lent, 2013).

From the evolution of career management and the new career trend that shifts accountability from employer to employee, it is evident that there is a substantial focus on self-managed careers, predictors of career success, the impact of adaptability on individuals' careers and the changes in workforce diversity (Greenhaus et al., 2009; Wang & Wanberg, 2017). Various interventions and incentives have been developed to promote the positive effect of career self-management on career success and organisational goals (De Vos, Dewettinck, & Buyens, 2008). Many of these career management incentives can activate the same mechanism and were demonstrated decades ago to not work in isolation but as a set of reinforcing bundles (Huselid, 1995; Delery & Doty, 1996; Eby, Allen, & Brinley, 2005). Still, existing conceptualisations of these interventions are linear, do not capture their additional effects and do not sufficiently address how individuals can be assisted in achieving their career goals successfully. Thus, more attention has started to be given to topics such as the resources required for individuals to effectively navigate their careers and achieve success

(Hirschi, 2012; Hirschi et al., 2018; Haenggli & Hirschi, 2020). For instance, Hirschi and colleagues (2018) identified ten career resources essential for career success, while Haenggli and Hirschi (2020) assessed relations between career adaptability resources as predictors for career success. Nonetheless, there is limited understanding of how career management inducements are indeed resources from which individuals can create a resource pool to enhance their career goals. Career resources have a great deal to offer in providing insight into individual and organisational issues of career development and success. However, more research is needed to improve how career resources are problematised in the literature, identify the most influential predictors and mediators of career outcomes, and recognise methodological and theoretical innovations that advance the understanding of career resources.

2.2. The Notion of Career Resources

Career resources refer to anything that helps individuals achieve their career goals (Halbesleben et al., 2014). These resources are essential for accessing other resources to achieve personally valued ends (Haenggli & Hirschi, 2020). It is posited that career resources are activated by behaviours of proactive career management that license people to work towards their goals (Hirschiet al., 2018). Career adaptability is a vital resource explored in recent years for enabling career progress and reducing work and career stress (Johnston, 2018). Career adaptability was initially defined as one's willingness to cope with fluctuating work conditions (Super & Knasel, 1981). Over the years, career adaptability has evolved into a psychosocial resource for dealing with current and projected career tasks, occupational changes and personal traumas (Savickas, 2013). Career construction theory describes career adaptability as attitudes, behaviours and abilities to successfully adapt to a suitable job and career (Hirschi, 2012; Savickas, 2013). The resources entrenched in career adaptability comprise concern, control, curiosity and confidence. Concern regarding the future enables individuals to look ahead and prepare adequately for their career aspirations. Control implies self-discipline, effort, persistence and responsibility for shaping one's career. Curiosity incites an individual exploration of the self and environment to identify various work roles and career opportunities. Confidence refers to belief in one's capacity to overcome obstacles and actualise choices associated with set career goals (Savickas & Porfeli, 2012). It is argued that the difference in individuals' willingness to engage in positive career behaviours and thus achieve career success is owing to their adaptability resources (Savickas, 2013). These four adaptability resources, although essential, are only a few of the broad range of career resources that enable people to manage their careers positively (Hirschi, 2012).

An attempt at defining career resources was made by Hirschi (2012), who consolidated different related constructs of self-directed career management into four categories of career resources. His notion of career resources was initially presented as a framework that integrates the factors facilitating individuals' career achievement (Hirschi, 2012). The integrated constructs include career adaptability, employability, career motivation, career self-management, career competencies and a protean and boundaryless career orientation (Kossek et al., 1998; Hirschi, 2012). As discussed earlier, career adaptability is a psychosocial resource that enables people to adapt to their changing environmental circumstances and cope with a new career context. Employability denotes a psychosocial construct that nurtures individuals' competencies acquisition to realise career opportunities (Fugate, Kinicki, & Ashforth, 2004). It is also the perception of one's ability to obtain or secure employment (Rothwell & Arnold, 2007). Career self-management is a dynamic process of enacting behaviours associated with career exploration, planning and strategising to increase the prospect of career goal fulfilment (Noe, 1996). Career competencies refer to the knowledge, skills, motivation and networks pertinent to developing one's career (Hirschi, 2012). Career motivation covers personal characteristics, behaviour, decisions, insight into the factors impacting one's career, and resilience to career disruptions (London, 1983). A protean career represents self-directedness towards career management (Briscoe & Hall, 2006), while a boundaryless career involves physical and psychological movement (Sullivan & Arthur, 2006). The definitions show that the different career constructs share several similarities but are suggested to differ in scope (Hirschi, 2012). These tautologies led to the proposition of four categories of career resources identified as vital for career development and decision-making. They are (a) human capital resources which refer to the knowledge, skills and abilities essential to meet performance expectations of a given occupation, (b) social resources, defined as the developmental networks and social capital present in one's environment, (c) psychosocial resources, outlined as the cognitive and motivational state of a person expressed in a work context, and (d) career identity resources, which comprise the awareness of one's status as a worker and the subjective meaning attributed to the job role (Hirschi, 2012; Hirschi et al., 2018). These career resources are conceived to co-exist such that each resource needs to be present, and one resource category facilitates the development of other resources. Equally, Hirschi's framework represents an integrated resource model; not only do career resources have to work in tandem to promote career success, limitations in one resource cannot be compensated with a surplus in another resource category. However, empirical examination of career resources and the dynamic processes of these resources is limited in the careers literature. A critical limitation of the study assessing the career resources framework proposed by Hirschi is its failure to distinguish the impact of different career resources on various outcomes across diverse populations (Hirschi et al., 2018). Little is

known about the bolstering effect of career resources over time and the unique potential of each resource to form developmental trajectories.

Key resources are another influential resource recognised for stimulating career growth (Haenggli & Hirschi, 2020). Key resources refer to the individual or combined stable traits that effectively manage and adapt to stressful demands and sustain a well of resources for future use (Hobfoll et al., 2018). From the perspective of COR theory, key resources explain how resources are chosen and exploited for personal career development (Hobfoll, 2002; Hobfoll et al., 2018). The most widely studied resources recognised as vital in careers research are self-efficacy (Bandura, 1997), dispositional optimism (Carver & Scheier, 1998) and self-esteem (Korman, 1967). When individuals perceive themselves as having the ability to influence their environment towards goal attainment, this is called self-efficacy. Self-efficacy promotes resistance to stress and produces emotional well-being (Bandura, 1997). It is believed that individuals with high self-efficacy set challenging goals and exert effort to overcome difficulties which may disrupt the achievement of their ambitions (Guan et al., 2013). Likewise, people with dispositional optimism are more persistent in pursuing their goals and strategically invest in self-regulatory resources. They exert more effort when the situation is favourable and reduce it when events become unpleasant (Pavlova & Silbereisen, 2013). Dispositional optimism is rooted in a positive belief system that stressful events can improve with time; thus, optimists report higher life satisfaction. They are accounted to have perceptions of social support, strong social networks, and greater resilience to loneliness (Vollmann, Antoniw, Hartung, & Renner, 2011). Research also indicates more robust health responses among optimists owing to lower psychological pressure (Carver & Scheier, 1998, 2014), echoing a direct association between health and well-being. Additionally, individuals with high self-esteem are shown to seek career roles that fit with their self-characteristics (Korman, 1967). Self-esteem represents the evaluation of oneself, characterised by either feeling of adequacy or inadequacy (Korman, 1967). Research shows that self-esteem plays a fundamental role in career development and the attainment of satisfaction and success (Osipow, 1983; Orth, Erol, & Luciano, 2018). However, like the earlier discussed career resources frameworks, key resources fail to consider the organisational factors that are demonstrated as essential in individuals' career development, the additional effects over time of career resources, and the mechanism by which different career resources relate to various career outcomes,

Building upon Hirschi's (2012) integrative framework of career resources, this study presents three career resources - job autonomy, supervisor support and organisational career management - as predictors of proactive career management behaviours and career-related

outcomes. In the new career landscape, these resources may be equated with the development of programs and incentives to assist individuals in achieving their career goals (Soares & Mosquera, 2021). Several authors have admitted that despite the growing relevance of individuals' proactivity, organisations continue to play a vital role in supporting individual careers (De Vos, Dewettinck, & Buyens, 2009). Organisations undertake a wide range of activities to manage and support the careers of their employees. Since the literature shows that individual career management activities are triggered by conditions or career management incentives (e.g., organisational support and supervisor support), and resources are defined as conditions, then it can be argued that career management inducements are resources that enhance employees' career prospects. Besides, this focus on career resources aligns with organisational and vocational research on the significance of resources for increasing job performance and nurturing meaningful careers (Hirschi et al., 2018). Notably, the precariousness and uncertainty of the current career context require individuals to have essential career development resources to achieve positive career outcomes (Wang & Wanberg, 2017). People are believed to develop resource management behaviours and attitudes to utilise available career resources towards their chosen careers (Spurk, Hirschi, & Dries, 2019). Therefore, researchers and practitioners can observe individual differences in proactive career management and career goal attainment across varied employment populations and contexts by empirically examining essential career management incentives as career resources over time. As stated by the conservation of resources theory, having one resource is generally associated with having others; however, the value of resources is presumed to vary across cultures and personal experiences (Hobfoll, 2001). Thus, by drawing on and advancing previous research on the predictors of individuals' proactive behaviours and positive career outcomes, this study proposes three critical career inducements as career resources: (1) job autonomy, (2) supervisor support for career development, and (3) organisational career management at different levels of the organisation as antecedents of proactive career behaviours and outcomes.

Job autonomy resource - Job autonomy refers to individuals' opportunity for independence, freedom, and discretion in how they conduct their jobs (Hackman & Oldham, 1976). Individuals with high job autonomy are less controlled by formal rules and procedures, can pursue work goals based on their personal values and interest, and exert career-oriented proactive behaviours (Sheldon & Elliot, 1999; Wu et al., 2018). In other words, high levels of job autonomy promote employees' risk-taking, problem-solving and alternative thinking (Oldham & Cummings, 1996; Tierney & Farmer, 2002). Research suggests that autonomy equips people with the opportunity to influence their careers to such an extent that it becomes congenial to their desired career aspirations (Morgeson & Humphrey, 2006; Colakoglu, 2011).

Job autonomy has been identified as one of the most important characteristics of work impacting employees' positive outcomes (Parker & Wall, 1998; Wu, Griffin, & Parker, 2015). Increased control over one's work motivates employees to explore new tasks and develop an array of knowledge and skills essential for their roles (Morgeson, Delaney-Klinger, & Hemingway, 2005). Since scholars have started to interpret work incentives using work demands and resources (Jackson, Schuler, & Jiang, 2014; Van Beurden, Van De Voorde, & Van Veldhoven, 2021), and job autonomy is seen as a task-level incentive that contributes to employees' work goals and buffers the effect of work demands (Bakker, Demerouti, & Verbeke, 2004), it is reasonable to expect that work incentives could be perceived as demands or resources by employees. This argument is supported by earlier studies that view autonomy as a job resource and infer that individuals who experience job autonomy can pull from their increased resource base to participate in extra-role behaviours (Bakker, Demerouti, & Verbeke, 2004; Park, 2016), whereas those with limited autonomy resources will be debilitated for work demands (Halliday et al., 2018).

Supervisor support resource - It is defined as the beliefs that employees form about the extent to which their supervisors care about their work, well-being and career development (Eisenberger et al., 2002; Holland et al., 2017). Supervisors are also seen as agents of the organisation responsible for implementing intended policies, managing employees' performance, and overseeing talent development (Gallardo-Gallardo, 2020; Thunnissen, 2016; Rousseau & Aubé, 2010). Supervisors play a crucial role in influencing employees' attitudes and behaviours to such an extent that supportive treatment by supervisors is found to be positively associated with performance, affective commitment and organisational citizenship behaviour (Wayne, Shore, & Liden, 1997). Supervisor support for career development equally assists subordinates with career planning and allows them to control their work (London, 1993). Thus, employees' perception of organisational practices as executed by line managers determines their unit-level attitudes and behaviours (Purcell & Hutchinson, 2007; Knies & Leisink, 2014). Research suggests that organisation relational practices provide employees with support and visibility in accomplishing their personal and professional goals (Bagdadli & Gianecchini, 2019). Thus, the relationship between a supervisor and subordinate is appraised as a valuable social resource (Yang et al., 2018) that produces additional resources such as career advice and social networks that offer future career opportunities. Earlier research suggests that supervisors influence the organisational climate so much that relationships with supervisors are more impactful than colleagues (Hopkins, 1997). A similar study that explored social support from different sources found supervisor support to be the most crucial resource for work-related outcomes (Hammig, 2017). Besides, it is shown that support that accelerates employees' career development has a more

substantial effect on outcomes (Kidd & Smewing, 2001). Regardless of the self-directedness of modern-day careers, employees are less likely to achieve their career-related outcomes without any support from their supervisors (Wickramasinghe & Jayaweera, 2010). Ultimately, supervisors, in their capacity as organisational agents, are directly responsible for guiding, assessing and supporting their subordinates through activities such as providing career guidance, performance feedback and promoting career development (Greenhaus et al., 1990; Dawley, Andrews, & Bucklew, 2008).

Organisation career management resource - The career management system practised by organisations is known as organisational career management. It refers to the policies and practices decisively established by an organisation to enhance the career effectiveness of its employees (Orpen, 1994). Organisation career management – the processes, programs and backings provided by organisations to develop employees' careers is highlighted as the new supportive role of organisations and creative method of attracting and retaining talents (Ng et al., 2005; Barnett & Bradley, 2007). This form of inducement has become essential in attracting and retaining individuals who are no longer swayed by traditional reward systems but rather seek out organisations that reinforce their career goals and expectations (Arasanmi & Krishna, 2019). It is argued that OCM practices are intended for individuals' needs and purposes and are valuable for navigating an organisation's needs and requirements (Herr, Cramer, & Niles, 2004). Researchers assert that OCM is linked to employees' identification with their jobs to such an extent that it positively impacts organisational objectives (Wesarat, Sharif, & Majid, 2014). It is implied that work and career are becoming more cohesive because careers are nurtured and enacted in individuals' daily work (De Vos, Akkermans, & Van Der Heijden, 2019). While traditional career management practices focus on promoting people to the hierarchical levels of the organisation, current career support offers diverse mobility opportunities (Baruch, 2006). They equally reflect on the incentives and strengths associated with their career goals. Organisational career management practices provide employees with various career opportunities to support individuals' professional achievements and career aspirations (Bagdadli & Gianecchini, 2019). These incentives, for example, training, international assignments and developmental assignments that improve employees' competencies are associated with career-related outcomes. Thus, these inducements function as resources over time as they are explicitly deemed relevant to pursuing individuals' career goals. Framing OCM practices as dynamic resources also advances the career literature by explaining how these practices produce their effects on individual career management and career outcomes to overcome the relatively descriptive and 'atheoretical' approach to career management (Bagdadli & Gianecchini, 2019).

The three career resources discussed above represent crucial career management incentives with unique and reinforcing influences on individuals. Successful career goal achievement depends on these three career resources available at different levels of the organisation and enacted by career self-management activities. Conservation of resources (COR) theory is introduced and extended to address these issues of resources by assessing how career resources travel in caravans and highlighting the specific resources that lead to the most valuable outcomes (Hobfoll, 2012; Hobfoll et al., 2018). Resources are critical to deciding employees' evaluation of work events and how they can cope with different work demands (Hobfoll & Schumm, 2002). For example, some resources are restricted in their availability, such that once utilised, individuals are left with fewer resources to cope with career demands or engage in career management activities (Van Woerkom, Bakker, & Nishii, 2016). Hence, assessing the impact of career resource availability on employees' career reactions and outcomes advances understanding of the accumulation or depleting effect of resources on career development. Furthermore, a recent study on the development and validation of career resources questionnaire recommends the longitudinal exploration of other key constructs which may impact career outcomes and their operation to form resource gain or loss spirals (Hirschi et al., 2018). Selecting dynamic practices as career resources instead of static traits fits more with the new career paradigm and the susceptible nature of proactive career management behaviours enacted by employees to stimulate and propagate these resources. According to Spurk and colleagues (2019), theoretical frameworks that focus on individuals' work attitudes and proactive career management behaviours are suggested as the most indicative basis for describing the achievement of career success. Therefore, COR theory is deemed the most appropriate framework to explain the additional effect of personal, social and organisational resources on career self-management to achieve individually valued goals.

2.3. Conservation of Resources Theory

To theoretically conceptualise career management practices or interventions as career resources and empirically test the effect of career resource trajectories on career crafting and career-related outcomes, this study draws on the conservation of resources (COR) theory (Hobfoll, 1989; Hobfoll et al., 2018). COR theory was initially proposed as a resource-oriented framework for studying stress, positioned on the basic tenet that people strive to obtain, retain and protect things they value. These valued things are labelled resources, loosely defined as objects, personal characteristics, energies or conditions valued in themselves or for attaining valued outcomes (Hobfoll, 1989). Object resources have value in their physical nature or status; personal characteristics are individuals' traits and skills for stress resistance; energies are prized for their use in acquiring other valued resources, and conditions are resources

because they are desired and valued (Hobfoll, 1989). The value of resources, it should be noted, is relative to an individual's context, experience and circumstance (Halbesleben et al., 2014) such that in acquiring and retaining resources, people can better manage stressful events. Stress occurs when critical resources are threatened with loss, when there is an actual loss of resources or when there is a failure to obtain critical resources following significant investment (Hobfoll, 2001; Halbesleben et al., 2014). Recent economic events, employment instability and career setting, have drawn attention to the significance of resources to human protection and survival.

Since its inception in 1989, COR theory has evolved into a motivational stress model with various extensions to explain individuals' need to acquire and conserve internal strengths and social bonds (Hobfoll et al., 2018). Within motivational and organisational models, resources are defined as perceptions of anything that facilitate employees' goals achievement (Halbesleben et al., 2014). While this definition, as with earlier definitions, means that anything can be a resource, it is helpful to clarify what factors, incentives or activities are categorised as resources and enable goal fulfilment. Researchers suggest that depending on its worth, resources may be substituted for one another to attain a common goal (Huang & Zhang, 2013; Halbesleben et al., 2014). The motivation to obtain resources is linked with the need to neutralise current stress situations and enhance resources for future needs and goals. Studies have drawn on COR theory to provide an integrative framework of resources concerning the attainment of valued goals. For example, COR theory was recently reported as a meta-theory for understanding how people use career adaptability resources to achieve the valued aim of career success (Haenggli & Hirschi, 2020). Likewise, COR theory was used to explain the relationship between environmental and personal resources on individual outcomes (De Vos, De Hauw, & Van der Heijden, 2011). Following the basic tenet of COR theory is the first principle that resource loss is disproportionally more significant than resource gain with a profound impact over time (Hobfoll, 2001). This principle means that in similar scenarios of resource loss and gain, the effect of resource loss would be resonant. Resource gain will only achieve prominence in buffering the impact of resource loss. Biological, psychological and evolutionary research infer a negative association between the loss of a key resource and human survival, evidenced by burnout, depression and stress (Hobfoll, 2001; Maslach & Leiter, 2008; Halbesleben et al., 2014). Thus, people are suggested to engage in behaviours that limit resource losses because of their overwhelming effect on well-being. Research also identifies resource loss as the primary predictor of coping activities and behaviours (Hobfoll, 2001). While resource loss is stressful, it is proposed that resources need to be expended to counterpose net loss (Hobfoll, 1989).

The second principle of COR theory states that individuals must invest resources to protect against resource loss, recover from losses and gain resources. This can be through direct resource replacement, for instance, working longer hours to regain support from one's supervisor or resource substitution, for example, compensating for the loss of promotion in the organisation with investment in proactive career construction. However, resource investment is precarious and exacts a price because if resources used to offset initial loss exceed the benefit of contributing to resource gain, a negative state of diminished capacity is inevitable (Hobfoll, 1989; Hobfoll, 2001). This cost is why in the study by Halbesleben and Bowler (2007) , emotionally exhausted employees focused little energy towards behaviours and activities that would consume their few remaining resources. It is also assumed that in gaining and maintaining resources, people invest resources which will subsequently be depleted for pursuing other valued ends and, thus, impact sustainable career development (Spurk et al., 2019). Illustrating this point is the first corollary of the principles of COR theory, which states that individuals with more significant resources are less susceptible to resource loss and more capable of resource gain. For instance, individuals with supportive supervisors generally receive socioemotional and tangible resources, which increases their sense of empowerment and, by extension, their job satisfaction (Zhou, Wang, Chen, & Shi, 2012). In contrast, those with fewer resources are more vulnerable to resource loss, whereby initial loss makes resource gain more challenging (Halbesleben et al., 2014). Corollary one suggests that individuals with low supervisor support, less access to job autonomy and less opportunity for skill development or networking will be more vulnerable to losses associated with lower career satisfaction. Despite the self-defeating consequence of resource investment with the potential for heightened stress and despair, a passive coping approach is deemed less favourable over time (Hobfoll, 1989; Hobfoll, 2001).

The two principal types of resources studied within COR theory are personal and social resources, supported by an array of evidence in which individual and social resources are used to offset the impact of resource loss (Hobfoll & Schumm, 2002; Hobfoll et al., 2003). Whereas personal resources are contained within the individual, social resources are seen as a powerful instrument for expanding the resources external to the individual (Hobfoll et al., 1990; Bozionelos, Lin, & Lee, 2020). It is suggested that having personal and social resources as one feature of COR theory means that resources are interactional and connected (Hobfoll et al., 1990). Where one primary resource exists, other vital resources are likely to be found. Besides, the resource investment process entails having a pool of resources that people can draw from. This introduces the notion of resource caravans whereby having one major resource facilitates the emergence of other resources and, likewise, their absence (Hobfoll, 2001). This idea of caravans could result from investing resources as they are gained to enrich

individuals' resource pool (Halbesleben & Wheeler, 2015) or developing a collection of resources to serve as a refuge from future losses. These aggregate into resource caravans where for individuals and organisations, resources are utilised for immediate use and over a lifecycle journey (Hobfoll et al., 2018). For instance, those with high self-esteem will have a more heightened sense of mastery and operational social support systems in the form of resource caravans (Rini et al., 1999; Hobfoll, 2002). This theory also means that limitations in one resource are associated with the absence of others; for instance, low self-efficacy has been linked with limited social support and coping behaviours (Hobfoll, 2001). While empirical research support this belief that personal and social resources are rarely independently found to influence individual outcomes (Westman et al., 2004), it is surprising that there is limited research on the accumulative impact of career resources at the individual and organisational level. Analysing the effect of task, social and organisational career incentives as resources that strengthen themselves in acquiring and enlarging one's resource pool (Hobfoll et al., 2018) is essential to progress understanding of resource co-travellers. Moreover, identifying these resource combinations means reflecting on how employees approach resources in the workplace, the investment or coping behaviours they employ and the impact of each of these resources on the attainment of valued career outcomes.

The second and third corollary of COR theory relates to the principle of resource caravans, which states that those with initial resource losses are more vulnerable to resource loss, such that initial loss causes future loss. People with greater resources are more capable of resource gain, whereby initial resource gain begets further growth (Holmgrenn et al., 2017). As resource loss is stressful, individuals must invest resources to offset further resource loss after the initial loss has occurred. Thus, loss spirals occur when investment in resources following an initial resource loss is unsuccessful in contributing to resource gain, such that the net effect of the investment leaves the individual in a perilous state (Hobfoll, 2001). Guo and colleagues (2022) found that work alienation led to a loss spiral whereby individuals who suffered from continuous alienation became emotionally exhausted and inclined to engage in knowledge hiding. In other words, Changes in one resource are purported to impact accessibility to other resources (Hobfoll & Schumm, 2002). Gain cycles are suggested to have an impact on stress-related situations such that in acquiring a pool of resources, future losses are limited (Hobfoll & Schumm, 2002). For instance, in their longitudinal study, Salavona, Bakker and Llorens (2006) found that social support at the beginning of the school year was associated with work-related flow (similar to exerting career initiative), and workflow predicted social support at the end of the year. Another longitudinal study supporting gain spirals showed that personal initiative, predicted by job resources via engagement, prompted engagement and resources through innovativeness (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008).

Although some studies have used COR theory to examine the relationship between resources and outcomes (Jiang, Xu, Zubielevitch, & Sibley, 2023), little is known about the cumulative effect of these antecedents on the outcomes. For instance, Yang and colleagues (2018) utilised COR theory and found that supervisory support for career development enhanced subordinates' work engagement, which in turn, improved their career success. Janssen and colleagues (2021) studied the relationship between career success and career crafting using COR theory. They found that individuals with high or low levels of subjective career success (signifying career resources) engaged in career crafting in line with their resource acquisition or conservation motives. These studies, conducted using cross-sectional designs, inhibit the ability to explore trajectories effects between the career constructs. Therefore, developing and assessing essential career interventions as resources longitudinally and their impact on career crafting will illustrate individuals' approaches to managing stress and their attempts to offset net losses over time.

As noted earlier, this study will highlight the resources that combine or are most valuable to meet individuals' career goals and those with counteracting effects in light of perceived or actual loss. COR theory infers that resources do not exist in isolation but cluster within individuals and communities. More so, resource levels are purported to change over time owing to the collection of resources that travel together (Baltes, 1997). Employees with a robust collection of task, social, and organisational resources may be considered more adaptable to stress (Hobfoll, 2001). As employees value the resources provided by the organisation in the form of career inducements, they may engage in career crafting, which may be considered a personal resource that individuals strive to maintain and develop towards their career goal attainment. Although the starting point of a gain or loss cycle may not be well defined, research indicates that significant events may create a shift in resources, potentially creating a cycle (Halbesleben et al., 2014). Thus, building on the work of De Vos, Akkermans and Van Der Heijden (2019) and Janssen and colleagues (2021), COR theory is used to explain and test a more comprehensive model, where not only the antecedents of career crafting are examined, but also the effects. This approach follows the proposition that career crafting may be the explanatory mechanism for relating career resources with career outcomes (Hirschi et al., 2018). Also, in line with the definition of resources in COR theory as anything valued by individuals and supporting the attainment of their goals (Hobfoll, 1989), career resources are investigated as dynamic resources that provide a different insight into how these incentives impact individuals' careers over time. By adopting the resource conservation, investment and cycle principles of COR theory, we examine how career management incentives or practices may be perceived as career resources and how career crafting can be both a resource-depleting and resource-augmenting behaviour. However,

available research has only treated the career-supporting activities of job autonomy, supervisor support and organisation career management as HR practices or career interventions. Examining these chosen career resources and how they create trajectories or spirals is essential to understanding how people with varying career resources respond to threats or stressful situations. Also, by incorporating the element of time into this study, we advance the current understanding of how resources increase over the sequence of individuals' work experience and their impact on varied career outcomes.

CHAPTER THREE: MODEL DEVELOPMENT

3.0. Chapter Summary

This chapter outlines the proposed hypothesised model. It begins with discussing how the relationship between three crucial career resources – job autonomy, supervisor support and organisational career management and unique career outcomes, namely career success, career commitment, internal employability, turnover intentions, and psychological contract fulfilment, are mediated by the two dimensions of career crafting - proactive career reflection and career construction. Also, career self-efficacy and talent philosophy are proposed as moderators in the relationship between the three career resources and the two dimensions of career crafting. Fundamentally, drawing on the resource caravans' principle of the conservation of resources theory, the dynamic effect of career resources over time on career crafting and career outcomes is explored – which is the focal part of this study.

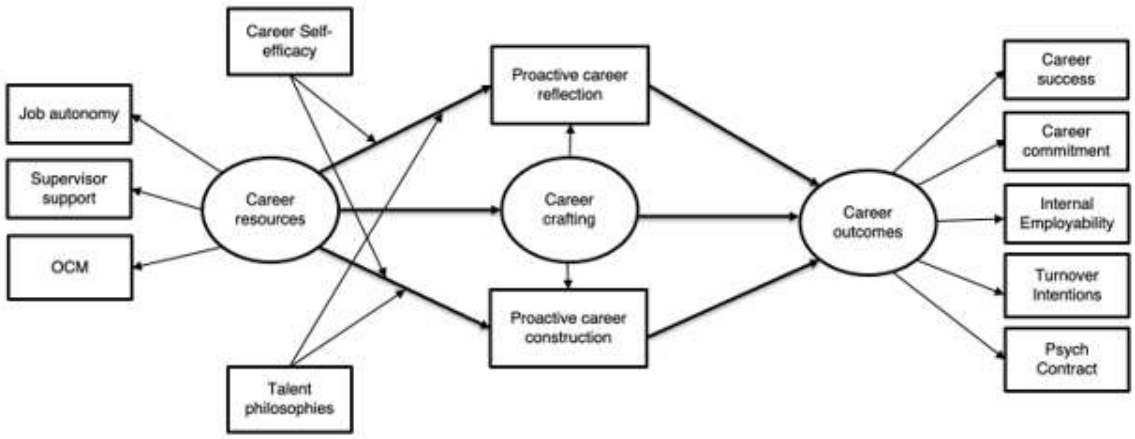

Figure 3.1: Hypothesised Model

3.1. The Mediating Role of Career Crafting in the Relationship between Career Resources and Career Outcomes

Career resources are significant because they assist individuals in preparing for and better coping with the demands of their careers. Research indicates that when employees receive an abundance of inducement from their organisation, they showcase positive attitudes and outcomes (Shin, Taylor, & Seo, 2012). However, would career resources from career management inducements lead directly to career goal attainment, or could there be an illuminating mechanism in this relationship? Are there specific combinations of career resources that foster the career self-management of career crafting, or does one career resource suffice? Should such resources be developed, or is a trade-off to be expected

following a decline in career crafting activities? Regrettably, there is limited research answering these questions in the career literature. To address this gap in the literature, three critical career resources at different levels of the organisation are discussed: job autonomy, supervisor support and organisation career management, and their relationship with career crafting. Equally, the association between career crafting and career outcomes are discussed. Underpinned by the principles of the conservation of resources theory, the following sections examine the mediating effect of the two dimensions of career crafting – proactive career reflection and career construction on the relationship between career resources and career outcomes.

Career crafting is a proactive behaviour that individuals display to expand their social network, cope with changing career and work situations, optimise person-career fit and achieve their career goals (Tims & Akkermans, 2020). Proactive behaviour refers to taking the initiative to advance existing circumstances or challenge the status quo (Crant, 2000). It is widespread knowledge that in today's career landscape, people must continuously craft their careers to be adaptable and relevant. In other words, career crafting entails personally taking responsibility for one's career development in securing a long-term sustainable career (Tims & Akkermans, 2020). Career research so far has focused on specific dimensions of proactive career behaviour, such as career planning and networking (De Vos, De Clippeleer, & Dewilde, 2009), skill development, visibility engagement and career exploration (Sturges, Guest, Conway, & Davey, 2002) and career initiative (Sylva, Mol, Den Hartog, & Dorenbosch, 2019). Studies have also explored career competencies as a crucial cognitive resource central to career development (Akkermans, Paradniké, Van der Heijden, & De Vos, 2018). Until the recent presentation of career crafting to the careers literature (Tims & Akkermans, 2020), studies integrating the cognitive and behavioural dimensions of career self-management were limited. Beyond advancing the literature, examining career crafting is integral to identifying the relationship between vital career resources, specific components of proactive career-related behaviours, and favourable career outcomes. In fusing career crafting with COR theory, career crafting is put forward as 'proactive resource management behaviours' focused on acquiring, investing, and protecting accessible resources to fulfil career-related goals (Hirschi & Koen, 2021; Janssen et al., 2021). Although career crafting is a newly operationalised construct, there is still a paucity of research considering the intermediating role of career self-management in explaining the relationship between career resources and career outcomes. This finding is paradoxical because it is largely unclear how the availability of career inducements or practices as career resources produce desired career outcomes and the impact resource trajectories have on individuals' career behaviour and, by extension, their career outcomes.

Career crafting captures the instability in individuals' needs and environmental demands that impact their career choices, potential and development (De Vos, Akkermans, & Van Der Heijden, 2019). It is the proactive behaviours individuals exert to take ownership of their careers. Proactive behaviours encompass the personal and environmental change individuals employ to achieve a distinct future (Parker, Bindl, & Strauss, 2010). Through career crafting, competencies are assessed against career needs to fulfil one's desired career choice. Research has identified self-profiling, learning and networking as features of career self-management (De Vos et al., 2009). Also, job crafting, the changes employees make to their job to achieve person-job fit, has been identified as a credible way to increase employees' performance, well-being and career success (Tims et al., 2012, 2014, 2015; Akkermans & Tims, 2017). According to the job demands-resources model (Bakker & Demerouti, 2017), job resources rouse an individual's motivation and energy to engage in job crafting behaviours to create new resources towards the realisation of set goals. From the background of earlier research on job resources and career crafting, it is suggested that individuals proactively crafting aspects of their job is a motivational process of utilising accessible resources for desirable outcomes (Bakker & Demerouti, 2014; Akkermans & Tims, 2017). Since career crafting builds on the notions of job crafting (Tims et al., 2012), and both job crafting and career crafting are proactive behaviours fundamental in employees' work and careers, it is expected that career crafting will be vital to the career development process. A key element of this development process is that individuals are central actors emphasised by the proactive career reflection and proactive career construction dimensions of career crafting. Employees review their career-related interests, motivations, and goals in proactive career reflection. In proactive career construction, they enact behaviours associated with career-related networking and self-crusading within or outside the organisation (Janssen et al., 2021). Therefore, it is logical to expect that employees that craft their careers will draw on accessible career resources to evaluate their career goals, improve their career profile and increase their social networks toward their career advancement and success. Besides, proactive behaviours are vital in the resources-career success relationship (Akkermans & Tims, 2017). However, few studies have empirically examined the drivers of these proactive career behaviours. Specifically, only one published research examined career success as a predictor of career crafting (Janssen et al., 2021). So far, the focus has been on investigating the positive outcomes of proactive career behaviours (De Vos, De Clippeleer, & DeWilde, 2009). Very little is known about the impact of the work context or organisational inducements in fostering these behaviours. Moreover, it is maintained that the widened gap between more proactive and less proactive employees is due to employers' limited understanding of ways to promote proactive career behaviours (Bolino et al., 2010; Janssen et al., 2021).

Extant research recognises an association between proactive work behaviours and positive outcomes of satisfaction and commitment (Thomas, Whitman, & Viswesvaran, 2010), yet, researchers suggest a depletion of individual's resources from engaging in proactive behaviours (Grant, Nurmohamed, Ashford, & Dekas, 2011). Strauss, Parker and O'Shea (2017) suggest that proactive behaviours cause resource loss under low autonomous motivation at work. According to COR theory principles, employees with access to a pool of career incentives, examined as career resources from a resource investment outlook (Hobfoll et al., 2018), will be expected to invest those resources in career crafting to achieve their desired career goals. On the contrary, those with limited career resources will be more susceptible to resource loss, which may incite their resource conservation behaviours of less career crafting. Notwithstanding, individuals with little or no career resources may engage in career crafting as a resource acquisition mechanism to prevent further resource loss. Overall, employees' career crafting is expected to be in response to the level and combination of career resources accessible to them. Furthermore, the oscillation of resources is believed to produce trajectories, specifically, gain and loss spiral (Halbesleben et al., 2014). Gain spiral indicates that employees with initial access to resources can gain additional resources over time. In contrast, those with fewer or no resources will experience further resource loss, producing a loss spiral. Given that job autonomy, supervisor support and organisational career management, as previously discussed, are categorised as essential career resources igniting positive career outcomes, this study centres on gain trajectories when investigating the dynamics of career resources and the ensuing career crafting activities employees engage in towards achieving their desired career outcomes.

3.1.1. Career Resources and Career Crafting

Job Autonomy – COR theory provides theoretical guidance regarding how resources (autonomy) may be related to other resources (career crafting), which may lead to an accumulation of gain spirals. COR theory states that resources are valued in their own right or for achieving other valued resources and inducing a motivational process in people (Hobfoll, 1989). It is believed that every job has an inherent motivational potential dependent on the existence of skill variety, task identity, task significance, autonomy, and feedback (Hackman & Oldham, 1980). For example, enriched jobs with autonomy influence individuals' control over the work environment and, in turn, their proactive motivation (Parker et al., 2010). As such, it induces employees to meet their set goals. In earlier studies, aspects of the job, such as autonomy, have been related to increased work motivation, performance, and career self-management (Tierney & Farmer, 2002; Li et al., 2021). Thus, this study examines autonomy

as a vital career resource for triggering individual career management. Job autonomy represents a task-level resource that is salient for additional resource gain by allowing individuals the opportunity for independence, freedom, and discretion in how they conduct their jobs (Hackman & Oldham, 1976). Individuals with high job autonomy are less controlled by formal rules and procedures, can pursue work goals based on their personal values and interest, and exert career-oriented proactive behaviours (Sheldon & Elliot, 1999; Wu, Parker, Wu, & Lee, 2018). Previous studies have shown that job resources (e.g., autonomy) are crucial for most occupations (Bakker & Demerouti, 2007; Hakanen, Bakker & Schaufeli, 2006). Job autonomy is also classified as a resource enabling individuals to effectively manage job demands (Karasek, 1979). This means that when employees have autonomy in their job, they have an essential resource of discretionary energy to tap into that can be utilised to fulfil work and career demands (Quinn, Spreitzer, & Lam, 2012; De Clercq & Brieger, 2021). This argument is in sync with COR theory, which characterises energies as resources that act as a conduit to protecting valued resources (Hobfoll, 1988). It is believed that employees' career resources acquired through career inducements are likely to enhance their career self-management (career crafting). According to COR theory (Hobfoll 1989, 2001), an abundance of resources provided by the organisation increases individuals' coping resources and promotes their confidence to overcome future challenges. Thus, employees given the career inducement of autonomy may feel valued and supported to engage in career crafting. Similar research has found that employees' positive affect is triggered by organisational incentives (Shin, Taylor, & Seo, 2012). Since job autonomy has been shown to promote several proactive behaviours, such as job crafting (Sekiguchi et al., 2017), and career crafting is recognised as a proactive resource management behaviour, we propose that job autonomy is a resource that facilitates career reflection by offering employees the scope to think about their career-related values, motivations and goals.

Additionally, active jobs that provide employees with high job control, opportunities for learning and autonomy are conceived to contribute to developing new behavioural patterns associated with self-management (Petrou et al., 2012). Self-management entails proactively positioning one's skills and experience, improving one's current job or organisational movement and influencing one's network to achieve desired career goals (King, 2004). By accessing controllability over one's task and influence over a broad range of decisions, we propose that job autonomy functions as a resource that promotes career construction by employees' proactive display of their strengths, utilisation and maintenance of career networks and the creation of career opportunities (Hirschi et al., 2018). Previous research has demonstrated that job autonomy is critical to employees' willingness to behave proactively (Frese et al., 1996; Shin & Kim, 2015; Beltran-Martin et al., 2017). COR theory indicates that

resources change in a dynamic way over time, supported by the principle of loss and gain cycles of resources whereby employees who lack resources are more vulnerable to resource loss which may lead to a chain of losses, and those with resources are better positioned for future resource gain (Hobfoll et al., 2018; Janssen et al., 2021). Hence, resources do not exist in isolation but greatly influence each other. Applied to the career management process, the gain cycle means an abundance of job autonomy will foster additional growth in proactive career reflection and construction. In contrast, employees with little or no job autonomy over time may strive to conserve their resources by not engaging in career crafting. More so, job autonomy is proposed to ignite resource maintenance, conservation and resource investment behaviours in employees. For example, a previous study found relative stability in job control over time (Feldt, Kivimaki, Rantala, & Tolvanen, 2004), whereas another study found a decrease over time in job resources for those with lower initial levels (Makikangas, Bakker, Aunola, & Demerouti, 2010). As empirical findings suggest that resources change over time and participating in career crafting is arguably costly, it becomes essential to understand how these changes impact employees engaging in proactive career reflection and career construction. Based on earlier empirical research and the assumptions of COR theory, we propose that:

> ***H1ai****: Employees who experience positive trajectories in job autonomy over time will show high levels of proactive career reflection*
> ***H1aii****: Employees who experience positive trajectories in job autonomy over time will show high levels of proactive career construction*

Supervisor Support - Supervisor support is a significant source of social resource that entails caring about subordinates, respecting their contributions, promoting their skill development and being generally supportive (Oldham & Cummings, 1996; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Rafferty & Griffin, 2004). Employees' perceptions of their organisation are believed to be greatly driven by their supervisors (Martin et al., 2016). A similar study found that the perception of fairness from supervisors ignited employees' formidable behaviours (Molina & O'Shea, 2020). According to Frese and Fay (2001), supporting work relationships provide individuals access to resources to exert proactive behaviours. For example, research shows that supervisor support for career development influences employees' self-directed career management behaviours (Cakmak-Otluoglu, 2012). Specifically, when employees experience their managers engaging in career development discussions and identifying resources to help with career-related problems and goals, they are motivated to participate actively in career management activities (Noe, 1996). Also, when employees perceive career development support from their supervisors, they are

encouraged to proactively manage and promote their careers within the organisation (Sturges et al., 2010; Huang & Hsieh, 2015). Despite the shift in contemporary careers from organisation-led to individual-driven career management, support from one's work environment is essential to ignite efficacy beliefs and proactive career behaviours (Lent, 2013). It is indicated that support from supervisors signals to employees the behaviours and attitudes that are respected and accepted (Baer & Oldham, 2006). It allows employees to develop career insights, explore opportunities and make meaningful choices that align with their career goals (De Vos et al., 2009). Thus, the higher the career support received from one's supervisor, the more willing employees are to participate in proactive career reflection and construction.

Furthermore, supervisor support is reasoned to provide individuals with the resources that impact the social aspects of the job associated with the two dimensions of career crafting (Tims & Akkermans, 2020). For instance, networking is an essential aspect of proactive career construction because it enables individuals to initiate and maintain relationships with others who can potentially help to promote their career development (De Vos et al., 2009). More so, support from one's supervisor means that employees can strategically be positioned to show others their strengths and skills to access career opportunities and gain support from their career networks (Hirschi et al., Nagy, 2018; Janssen et al., 2021). Supervisor support is a protective resource that incites employees to discover additional development initiatives to boost their organisational profile (Li, Han, Qi, & He, 2021). This equally means that networking and self-crusading will likely be unsuccessful when supervisor support is low. Earlier research has studied supervisor support as an organisational resource that increases subordinates' interest and energy levels (Yang, et al., 2018). In the same vein, supervisor support for career development is likely to expand employees' career-related interests and motivation associated with proactive career reflection. Thus, when employees obtain support from their supervisors and believe their desired career outcomes are achievable from their proactive career behaviours, they become energised to reinforce them. These proactive employees, in turn, are provided with more responsibilities and support such that initial career resource gain begets further resources in the form of a gain spiral (Tornau & Frese, 2013; Huang & Hsieh, 2015). Previous longitudinal research found that support from supervisors has lagged effects on proactive personality, which fuels further modification in supervisory support (Li, Fay, Frese, Harms, & Gao, 2014). Typically, employees with experience in supervisor support are likely to access more resources in the form of additional skills development and special visibility assignments that aid in fulfilling their career goals. Adopting the doctrine of COR theory, employees with access to the career resource of supervisor support are likely in a better position for further resource gain as they have a larger pool of resources to invest in

career crafting (Hobfoll, 2001). Conversely, employees with little or no supervisor support are more vulnerable to resource loss and will endeavour to conserve their remaining resources through less career crafting. Although the supposition that support from supervisors is a vital HR and career management practice is not new, all we know are these static or linear relationships. Careers research may benefit from examining whether the dynamic nature of supervisor support as a career resource would show similar or different effects on employees' career crafting. Therefore, we propose that:

> ***H1bi****: Employees who experience positive trajectories in supervisor support over time will show high levels of proactive career reflection*
> ***H1bii****: Employees who experience positive trajectories in supervisor support over time will show high levels of proactive career construction*

Organisation Career Management - One significant outcome of the changes in the business environment is organisations adopting a supportive rather than a directive approach to employees' career development (Baruch, 2006). Although current organisational models mean employees are primarily responsible for their career management, employers continue to provide support through career management initiatives (Clarke, 2013). It is believed that practices, such as opportunities for growth, fair procedures, training and career development, and employee participation in decision-making, enhance employees' perception of organisational support (Wayne, Shore, Bommer, & Tetrick, 2002; Edwards, 2009). Notably, organisational support or developmental opportunities are synonymous with organisation career management (Pazy, 1988). Organisation career management (OCM) is therefore presented as the deliberate practice by organisations to make available contextual support and resources to improve individuals' career success (Orpen, 1994). Although it may vary across organisations and the environment it operates, OCM comprises formal (e.g., career planning and training) and informal (e.g., mentoring and coaching) strategies that influence employees' career outcomes (Barnett & Bradley, 2007). Previous studies have examined the different types of OCM practices and their positive impact on individuals' career development (Baruch, 2003; De Vos & Cambre, 2017). However, what remains unclear is how these practices reinforce one another when implemented to initiate a cumulative gain process towards individuals' career aspirations. Thus, OCM practices are proposed as a career resource with a cumulative nature whereby those with this pool of resources are likely to gain more that can be used for resource investment (Hobfoll, 2001). OCM differs from other resources because it integrates career development with organisational growth (Guan et al., 2014). Thus, when employees perceive the organisation's support and encouragement to make their career decisions, this will result in involvement and commitment to personal and

organisational goals (Albrecht, Breidahl, & Marty, 2018). OCM includes a range of practices, such as training and job rotation that help nurture employees' career competencies and promote their employability (De Vos et al., 2011). Studies categorise career competencies as knowledge, skills and abilities that form an essential career resource and are vital to employees' career development (Akkermans et al., 2018). Thus, the right career competencies from OCM over time may enable employees to become more interested in their goals, proactive and intentional about their career aspirations and choices (De Vos et al., 2019), all of which are features of proactive career reflection.

Other OCM practices, for example, international and developmental assignments, help employees build their social networks and increase their visibility and access to career-related resources in the organisation (Carpenter, Sanders, & Gregersen, 2001). Employees who experience organisational career support are more likely to take initiatives directed at their careers (Van Dam, 2004; Verbruggen, Sels, & Forrier, 2007). Access to virtual networks means that employees can proactively expand and present their competencies to "gatekeepers" to accomplish their career goals (Tims & Akkermans, 2020). Whether within the organisations or the external labour market, OCM practices may enable individuals actively explore and influence latitudes for learning and growth aligned with their career path. According to Tang and colleagues (2017), resources provided by the organisation foster employees' risk-taking behaviours and personal initiative. This aligns with the behavioural element of career crafting that focuses on targeted behaviours to advance one's career. Markedly, COR theory offers a model of motivation in which the availability of resources is associated with human behaviour (Hobfoll, 2002). While it is established that organisations tend to provide OCM practices in combination (see Bagdadli & Gianecchini, 2019), existing studies do not consider the additional effects of these practices on individuals' career development. Studies indicate that over time, organisational investment in employees, for instance, OCM, causes individuals' investment in their careers, which becomes the starting point for further career development (Bagdadli & Gianecchini, 2019). Corresponding with the basic tenet of COR theory, OCM practices can be posited as the resources individuals strive to obtain and maintain such that they venture to develop their pool of OCM practices over time to reduce the risk of future loss (Hobfoll, 1989). This can be achieved by investing in career crafting behaviours to obtain more OCM advantages in the future or lowering engagement in career crafting to conserve one's limited access to OCM practices. Therefore, we propose that:

> ***H1ci**: Employees who experience positive trajectories in organisational career management over time will show high levels of proactive career reflection*

***H1cii**: Employees who experience positive trajectories in organisational career management over time will show high levels of proactive career construction*

3.1.2. Career Crafting and Career Outcomes

Career Success – For decades, career success has been an essential topic in vocational research; however, the evolving business environment has provoked a rejuvenation of its predictors. Essentially, individual self-directness is deemed more relevant in explaining the unique variations in the different aspects of career success (Haenggli & Hirschi, 2020). Career success refers to individuals' intrinsic and extrinsic achievements of work-related outcomes in their career lives across occupations and organisations (Bozionelos, 2003), comprising objective and subjective metrics. Objective career success is evidenced by tangible indicators, such as increased promotion, job level, occupational status, salary and professional competencies (Arthur, Khapova, & Wilderom, 2005). While objective career success is observable by others using standardised measures, subjective career success centres on the personal experience of the career actor (Spurk, Hirschi, & Dries, 2019). Subjective career success is the individual evaluation of one's career across different measurements, for instance, goals for income, development of new skills, access to learning and work-life balance (Arthur, Khapova, & Wilderom, 2005; Greenhaus, Parasuraman, & Wormley, 1990). Thus, career satisfaction is widely used as one of the most relevant indicators of subjective career success. Existing research reveals a wide range of cognitions and behaviours as antecedents of career success. For example, career planning is found to be positively related to career satisfaction (Wayne et al., 1999; De Vos et al., 2009), just as networking (Sturges et al., 2002) and career initiative (Seibert et al., 2001) are deemed pivotal for career success. More so, it is argued that proactive employees tend to be more successful in their careers because they pursue available opportunities with a determination to achieve their goals (Ling et al., 2017). Although evidence exists for the positive effect of these processes on career success, only recently have they been brought together as a two-dimensional model of career crafting. Tims and Akkermans (2020) introduced the concept of career crafting to capture the behaviours and cognitions associated with modelling one's career and increasing person-career fit. Through career reflection, employees can gain insight into how to achieve their career goals. With career construction, they can show others their capabilities and utilise their career networks to enhance their potential for career success (Hirschi et al., 2018). Through the lens of COR theory, the characteristics of career crafting (career planning and networking) can be seen as entities that help employees achieve personally valued states or objects of success (Halbesleben et al., 2014). Thus, it can be assumed that employees who explore and assess their career-related motivations and goals

and build their career-related networks and profiles will more likely be successful. This category of employees will be more willing to make adjustments when faced with disruptions on their path to success. To illustrate, Akkermans & Tims (2017) found that job crafting was related to subjective career success. Taking together the discussed empirical evidence and theoretical assumption of this study, we propose that:

***H2ai**: Proactive career reflection is positively associated with career success*
***H2aii**: Proactive career construction is positively associated with career success*

Career Commitment – As organisations repeatedly change with less capacity for job security, career commitment becomes a vital source of work-related and professional meaning and continuity than organisational commitment (Colarelli & Bishop, 1990). Career commitment is described as the motivation and dedication of an individual to a chosen career path (Hall, 1971). It also refers to the general attitude of people to their vocation (Blau, 1985). In other words, career commitment goes beyond any job or occupation; it focuses on individuals' vow to a set of self-generated career goals independent of the organisational context. Proactive behaviour is suggested to help employees to be dedicated to their careers and the organisation (Den Hartog & Belschak, 2007). This supposition is because proactive behaviour is vital in enabling individuals to intentionally direct their careers towards set goals or desired changes (Mihail, 2008). More so, research shows that career-oriented proactive behaviour is primarily related to career commitment, thereby supporting the argument that attachment to a specific target enhances behaviours focused on ensuring the success of the target (Belschak & Den Hartog, 2010). Therefore, it is expected that the more involved individuals are in self-initiative actions, like proactive career reflection and construction, the greater their commitment to their careers. Since it is established that resource investments are primarily proactive (Chen, Westman, & Hobfoll, 2015), and according to the COR resource investment principle (Hobfoll, 2001), extra effort is required for resource activation, then employees' engagement in career crafting is examined as a form of resource investment initiative that fosters their career commitment (Forrier, De Cuyper, & Akkermans, 2018). Additionally, job crafting is believed to help facilitate career commitment because it allows individuals to change the boundaries of their job (Wong, Kost, & Fieseler, 2021). Likewise, the two dimensions of career crafting are likely to boost employees' intrinsic motivation to maintain their career paths, be dedicated to their jobs as long-term careers, and fulfil set career goals (Demerouti, 2014; Dubbelt, Demerouti & Rispens, 2019). Based on the foregoing, it is proposed that:

***H2bi**: Proactive career reflection is positively associated with career commitment*
***H2bii**: Proactive career construction is positively associated with career commitment*

Internal Employability – Employability is essential to employees as a source of identity as it is to employers that seek to obtain and retain an adequate pool of competent individuals (Van Emmerik et al., 2012). Since technological advancements and economic globalisation are accelerating employment uncertainty, employability has garnered widespread interest in vocational research (Van der Heijden, 2002; Rothwell & Arnold, 2007; Vanhercke et al., 2014). Employability refers to an individual's ability to secure and retain an initial job or obtain a desired one (Rothwell & Arnold, 2007). It is the perception of one's access to roles in the internal and external labour markets (March & Simon, 1958; Hillage & Pollard, 1998). Within the internal labour market, employability is defined as individuals' value of positions and prospects to retain and satisfactorily move within the organisation (Van der Heijden, 2002; Rothwell & Arnold, 2007). From a modern career perspective, individuals are continually challenged to embrace a proactive approach. The necessity to act proactively concerning one's employability becomes even more critical in contemporary organisations where activities are fast-paced. This development suggests the need to understand how employees' proactive career behaviours impact their employability. For instance, studies indicate that employees engage in career management activities in the form of networking, visibility behaviour, career planning and decision-making with the aim of developing their employability (De Vos & Soens, 2008; Jackson & Wilton, 2017; Chiesa et al., 2020; Soares & Mosquera, 2021). Also, having career-related networks leads to career opportunities within and outside the current organisation (Kauffeld & Spurk, 2022). This is because individuals who proactively manage their careers create and influence work situations that increase their options for development, role changes and employment (De Vos & Soens, 2008). These studies provide evidence of a positive relationship between the two dimensions of career crafting and perceived employability. Nevertheless, it is plausible that proactive career reflection and construction may also be targeted to enhance internal employability. The link between career crafting and internal employability can be further explained through the assumptions of COR theory (Hobfoll, 1989), whereby career crafting is examined as a personal resource that individuals strive to maintain or develop. Also, the theory postulates that people proactively engage in resource development and management activities to achieve their valued ends. As an extension of existing research, we propose that:

***H2ci**: Proactive career reflection is positively associated with internal employability*
***H2cii**: Proactive career construction is positively associated with internal employability*

Turnover Intentions – Turnover is salient for employers because of the impact replacing exited employees has on organisational resources and performance. The unsought

consequence of replacing employees supports the tremendous dedication of academics, and practitioners have to identify the antecedents of turnover intentions and actual turnover (Griffeth, Hom, & Gaertner, 2000). This construct is indispensable in a world where talents remain the critical source of competitive advantage (Pfeffer, 2005). Turnover intention is a crucial response variable with the potential to lead to actual turnover or other damaging withdrawal behaviours (Chang, Wang, & Huang, 2013). It is an individual's cognitive readiness to leave an organisation characterised by thoughts of quitting and searching for alternate employment (Tett & Meyer, 1993). Voluntary turnover is doubtlessly disruptive to organisations; hence a wide range of predictors of turnover have been studied. For example, social capital and trust in the organisation are shown to increase employees' reluctance to leave (Yang, Gong, & Huo, 2011). Likewise, opportunities for practising and enhancing capabilities are found to be negatively related to turnover intentions (Van der Heijden et al., 2018). Different constructs may qualify as proactive behaviour – skill/competency development, taking charge, self-profiling, but career crafting is considered actual proactive behaviour as it combines these various constructs into proactive career reflection and career construction (De Vos, Akkermans, & Van Der Heijden, 2019). Earlier research suggests that the extent to which employees have networks or links to other people within the organisation influences their tendency to stay (Mitchell et al., 2001). Likewise, employees' interest and enthusiasm for their job is shown to be negatively related to leaving intent (Agarwal et al., 2012). In other words, proactive career construction and career reflection validates the self-sufficiency employees receive from their organisation, that allows them to form a psychological attachment to it and reduces their inclination to seek employment elsewhere. The examination of this relationship is essential as these forms of proactive behaviour may be further encouraged by the organisation. For instance, research indicates that when individuals perceive their work activities as opportunities to express themselves, they are motivated to remain in their current organisation for a longer period of time (Oprea, Paduraru, Iliescu, 2022). According to COR theory (Hobfoll, 1989), when employees invest resources in their work environment, they seek to minimise the loss of these resources. Since proactive behaviours have been conceptualised as a critical resource that benefits both individuals and their organisation (Bolino, Valcea, & Harvey, 2010), COR theory seems appropriate to understand the positive effect of career crafting. Not only is career crafting a form of proactive behaviour likely to increase employees' resources, but employees with additional resources to engage in proactive career reflection and construction may become more reluctant to leave the organisation. Regardless of the number of studies on indiciating that individual, organisational and contextual conditions are the antecedents of employee turnover, much remains unknown about the impact of employees' proactive career reflection and construction on their intention to stay in the organisation. Therefore, we propose that:

***H2di**: Proactive career reflection is negatively associated with turnover intentions*
***H2dii**: Proactive career construction is negatively associated with turnover intentions*

Psychological Contract Fulfillment – Employers and employees have different obligations and expectations of each other. These expectations go beyond the legal employment contract and cover other implied aspects of work, pay, rights and entitlements of both parties (Schein, 1978). From an individual perspective, a psychological contract is conceived as the belief in mutual obligations between oneself and the employer (Rousseau & Tijoriwala, 1998). Traditional psychological contracts comprise employers' promise of job security, fair pay for fair work, and career growth within an organisation in exchange for employees' loyalty and high performance (Guest, 1998). This is deemed no longer plausible in the contemporary work environment. Still, extensive studies on psychological contracts have primarily focused on employees' perception of implicit and explicit promises of job security, pay and other employer inducements (Conway & Briner, 2002; Morrison & Robinson, 1997; Cullinane & Dundon, 2006). Psychological contract is a valuable opportunity to understand employee attitudes and behaviours. Previous studies on psychological contracts show that proactive career behaviours form an essential part of individuals' belief about the rewards owed by their organisation in return for the contributions undertaken to realise their career goals (Cavanaugh & Noe, 1999). As careers have become more boundaryless, the onus is on individuals to take accountability for their career management. Thus the new psychological contract deal between employer and employees is one where an automatic expectation of a career for life is asserted to be replaced with belief in the provision of career assistance (Sturges et al., 2005). These changes mean that individuals must be proactive about managing their careers and position themselves as assets in which the employer can invest. Suppose employees exhibit career management behaviours in the organisation, such as networking and self-profiling, they supposedly send out signals that they are the kind of employees worth investing in, thereby increasing their expectation in their employer to reciprocate with career management help (De Vos, Buyens, & Schalk, 2003). Similarly, De Vos and colleagues (2009) found that the higher the level of proactivity employees show concerning managing their careers, the higher their level of expectations towards the organisation. In other words, the psychological contract will indicate career-related promises which the employee believes have been implicitly communicated by the employer, and psychological contract fulfilment will be associated with the receipt of career-related assistance. Existing research found that individuals who engage in activities to advance their careers receive more organisational support as a result (Sturges et al., 2002). Besides, career self-management is believed to put an employee in a position to be seen by the employer as

suitable for further career development (Stickland, 1996; Arnold, 1997). These findings provide support for the theoretical reasoning that employees generally perceive career self-management activities such as proactive career reflection and career construction as their part of the employment contract (Sturges et al., 2005). Therefore, it is proposed that:

***H2ei**: Proactive career reflection is positively associated with psychological contract fulfilment*

***H2eii**: Proactive career construction is positively associated with psychological contract fulfilment*

3.1.3. The Mediating Role of Career Crafting

Prior studies have laid the foundation for exploring the mediating effect of career crafting in linking career resources and career outcomes. Boxall and colleagues (2015) found that social and organisational resources in the form of high-involvement work processes produce valuable outcomes for employees through their intrinsic motivation, related to the cognitive element of career crafting. Jung and Takeuchi (2018) also found that in a bid to maximise resource gain, people engage in career self-management when organisation-based support resources are available, facilitating their career satisfaction. Although the three theorised career resources have been widely studied as possessing stable qualities as represented in the literature, recent research shows they can be developed. For example, Clausen and colleagues (2022) explored the increasing potential of job autonomy. Tafvelin and colleagues (2019) revealed effective strategies to increase supervisor support. Bagdadli and Gianecchini (2019) also discussed the developing and reinforcing prospects of OCM practices. Thus, it is posited that growth trajectories in career resources, that is, job autonomy, supervisor support and organisation career management, may foster employees' proactive career reflection and career construction, which in turn promotes the achievement of career outcomes. According to the resource investment principle of COR theory, organisational resources enable people to acquire new resources, which leads to positive results from the investments of these resources (Hobfoll, 2001). Consistent with COR theory, when individuals perceive that they have sufficient career resources, they seek to increase these resources by engaging in the motivational mechanisms of career crafting, which promotes their career success and commitment, increases their perceptions of employability and psychological contract fulfilment and influences their intentions to remain in the current organisation.

As discussed earlier, employees with continuously high levels of autonomy will be expected to exert career management behaviours (i.e., career crafting) to attain objective and

subjective career success. Moreover, individuals with high levels of autonomy are thought to consolidate different activities into their roles through proactive activities, which increases their commitment (Bakker & Demerouti, 2014). It is maintained, according to COR theory, that people develop resource management attitudes and coping behaviours to achieve positive career outcomes (Hall, 2002; Spurk, Hirschi, & Dries, 2019). Therefore, we propose that trajectories in job autonomy facilitate employees' engagement in proactive career reflection and career construction, and such investment translates into career-related outcomes. Equally, career development support from one's supervisor is expected to foster positive career outcomes through subordinates' career activities (i.e. career crafting behaviours). According to Yang and colleagues (2018), career-related support from one's supervisor is a vital resource for increasing subordinates' career satisfaction and promotability through the proximal component of self-investment. Similar research has demonstrated that servant leadership activities empower employees to engage in proactive career behaviours, which have a significant impact on their positive outcomes (Chughtai, 2019). Thus, career support from one's supervisors will impact employees' career-related outcomes through career crafting, as shown in the mechanisms of proactive career reflection and career construction.

Additionally, organisational career management is found to promote career self-management aimed at advancing a career within or outside a current organisation (Sturges et al., 2002). These practices comprising challenging assignments, training, tuition reimbursement, and fair treatment (Ng & Feldman, 2014; Benson, Finegold, & Mohrman, 2004) are suggested to increase individuals' career-related resources that provide future career opportunities (Bagdadli & Gianecchini, 2019). It is posited that offering career support minimises the gap between employees who are proactive in managing their careers and those with a passive stance, thereby inducing their employability (De Vos, Dewettinck, & Buyens, 2009). Since earlier research suggests proactive behaviour as mediating the relationship between organisational support and career success (Barnett & Bradley, 2007), the features of proactive behaviour (career crafting) may mediate the relationship between OCM and career success. Besides, Hirschi and colleagues (2012; 2018), who introduced the concept of career resources, present them as contextual factors that empower individuals to achieve their career goals. Altogether, the three career resources are theorised to be developed and sustained through career activities of networking, learning and career exploration (Hirschi & Koen, 2021). As career self-management encompasses cognitive and behavioural components that involve similar activities to direct one's career development (Lent & Brown, 2013; Hirschi & Koen, 2021), career resources over time are expected to evoke individuals' proactive career reflection and career construction for varied career outcomes. Notably, a longitudinal design that dynamically examines the relationship between career resources, career crafting and

career outcomes may offer credibility to the proposed relationships. Taken together, we suggest a mediational role for proactive career reflection and proactive career construction in the relationship between career resources (i.e. autonomy, supervisor support & OCM) over time and career-related outcomes (i.e. career success, career commitment, internal employability, turnover & psychological contract fulfilment). Therefore, we propose that:

***H3i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career success*
***H3ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career success*

***H4i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career commitment*
***H4ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career commitment*

***H5i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and internal employability*
***H5ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and internal employability*

***H6i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and turnover intentions*
***H6ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and turnover intentions*

***H7i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and psychological contract fulfilment*

***H7ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and psychological contract fulfilment*

3.3. The Moderating Role of Career Self-Efficacy

The strength of the association between career resources and career crafting may vary due to the individual characteristics of employees. Psychological resources such as self-efficacy beliefs are assumed to promote career decision-making and goal-setting, suggesting that static resources can be developed and affected by other dynamic resources (Hirschi, Niles, & Akos, 2011; Hirschi, 2012). Self-efficacy is conceptualised as an individual's resource and positive self-evaluations associated with goal-directed behaviour. In today's employment setting, characterised by increased self-directedness, self-efficacy is established as the most important personal resource for one's belief to achieve individual career goals (Herrmann et al., 2015; Rigotti et al., 2020). It also refers to judgments employees make regarding their ability to do what is necessary to perform their jobs successfully (Jimmieson, 2000). According to Bandura (1989), self-efficacy influences an individual's attitudes towards stressful situations, coping behaviours and performance. Individuals with high self-efficacy are believed to be confident in their skills, put in more effort and are more likely to obtain the things they value (Lent et al., 2017). Self-efficacy feeds vital energy and the motivation required to obtain and maintain environmental resources (Holmgrenn et al., 2017). It is also found to be a major construct for explaining and predicting motivation, performance and career development (Day & Allen, 2004). From a COR perspective, individuals with high self-efficacy tend to possess greater individual resources that motivate them to obtain other resources and make them more capable of resource gains (Hobfoll, 1989).

Bandura (1997) identified different sources of information that foster high self-efficacy. They include performance accomplishment, vicarious experience, verbal persuasions and physiological arousal. Performance accomplishment encompasses learning and skill-enhancing activities to provide successful experiences (Betz, 1992). Vicarious persuasion is the influence of 'important people' or 'role models' in fostering one's efficacy beliefs (Bandura, 1997). Verbal persuasion emerges from the insinuation by these influential people that an individual can cope with demanding situations (Rigotti et al., 2020). Physiological arousal denotes the cognitive interpretation of a challenging task or situation, whereby positive affect is associated with higher efficacy and vice versa (Bandura et al., 1982; Rigotti et al., 2020). Significant research has examined the direct relationship between self-efficacy and performance, persistence, learning and affect (Torres & Solberg, 2001; Schmidt & DeShon, 2010; Sheu et al., 2018). Additionally, Self-efficacy has been used in different domains,

evidenced by the different types of self-efficacy examined. For instance, general self-efficacy is seen as an extensive construct that impacts all areas of life (Chen, Gully, & Eden, 2004). Academic self-efficacy is one's credence about passing a subject (Lent et al., 1984). Coping self-efficacy is an individual's confidence to manage career barriers (Lent, 2003), and occupational self-efficacy is the belief that one can demonstrate the behaviours required to meet work demands (Runhaar et al., 2019). While studies show that self-efficacy influences employees' career choices and career success, a vast majority of them measure the generalised self-efficacy and focus on college student's career choice, their educational performance behaviour and the transition into the early phase of their careers (Matsui & Onglatco, 1992; Abele & Spurk, 2009; Spurk & Abele, 2014; Rigotti et al., 2020). There is still a lack of empirical research investigating career-related self-efficacy within the career context.

To advance understanding of the career development process, a self-efficacy theory has been applied to careers research (Lent & Hackett, 1987). This is referred to as career self-efficacy. It is employees' conviction about their ability to direct their careers and successfully achieve career growth (Kossek et al., 1998). Career self-efficacy is denoted to influence individuals' career behaviour, choice, performance and resilience (Sullivan & Mahalik, 2000). This type of self-efficacy is shown to be related to a person's static sense of confidence, such that parental support was found to be helpful in sustaining career-related self-efficacy and, in turn, career decidedness (Restubog, Florentino, & Garcia, 2010). This characteristic is essential because the stable, trait-like belief in one's competence and ability is distinguishable from the dynamic task-specific expectation regarding one's performance in different situations (Chen, Li, & Leung, 2016). There is existing research that shows that self-efficacy mediates several relationships. For instance, Afzal and colleagues (2019) found that supervisor support develops the self-efficacy of employees, which decreases their turnover intention. Also, the relationship between leadership and followers' affective well-being is shown to be mediated by followers' self-efficacy (Nielsen & Munir, 2009). Despite these studies showing self-efficacy as a mediator, others treat it as a moderator. For example, Pan, Sun, and Chow (2011) found self-efficacy to be a crucial moderating factor in the relationship between supervisory mentoring and career outcomes. Subordinates with higher levels of self-efficacy were found to engage more in mentoring and, by extension, personal learning than those with lower levels of self-efficacy. Likewise, self-efficacy was shown to moderate the relationship between career commitment and career success, such that the relationship becomes more robust at higher levels of self-efficacy (Ballout, 2009). However, these studies, like many before, focused on general self-efficacy against career-related self-efficacy. While employees supported by transformational leaders and high in self-efficacy demonstrate more commitment and motivation (Bass et al., 2003), there is limited study on the moderating role of career self-

efficacy. Thus, this study advances career research by exploring the moderating impact of career-related self-efficacy on the relationship between career resources and career crafting. Given that career crafting is related to behaviours enacted to manage one's career and achieve a person-career fit, it is probable that the psychological resource of career self-efficacy may amplify the impact of career resources on one's career crafting.

Additionally, it is indicated that self-efficacy impacts the importance employees place on career inducements in assessing their career development (Ballout, 2009). This personal resource fosters the intrinsic motivation to pursue set goals (Luthans & Youssef, 2007). It can also be a source of strength to cope with high demands or influence dispositional behaviours to access further resources (Kira, van Eijnatten, & Balkin, 2010). Likewise, it may signify a limitation in individuals' internal strength to overcome external barriers in a social context (Hackett & Betz, 1981). Career resources may play a role in enhancing career crafting for employees with high career self-efficacy than those with low career self-efficacy. Employees with high career self-efficacy possess the internal resource to gain more resources and the motivation to achieve their career goals. On the contrary, those with low career self-efficacy are prone to self-doubt and anxiety and are less likely to take advantage of available resources and exert self-management behaviours towards their careers. COR theory has been frequently applied to understand stress and explains the process of how individuals engage in behaviours that avoid resource losses (Halbesleben et al., 2014). In such a volatile work environment as contemporary organisations, resource investing or replenishing mechanisms may be constrained by those with weak personalities. To protect themselves from further resource reduction, this category of employees may reserve their remaining career resources and reduce their career crafting. Besides, low self-efficacious employees may not be as proactive in counteracting the effect of decreases in career resources as high self-efficacious employees. This indicates that the impact of career resources on proactive career behaviours could differ as a result of an individual's career self-efficacy. Based on the ensuing reasoning, it is proposed that career self-efficacy may strengthen the relationship between career resources and the two dimensions of career crafting. Therefore, we propose that:

> ***H8i****: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career success, but only when career self-efficacy is high*
> ***H8ii****: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career success, but only when career self-efficacy is high*

***H9i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career commitment, but only when career self-efficacy is high*
***H9ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career commitment, but only when career self-efficacy is high*

***H10i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and internal employability, but only when career self-efficacy is high*
***H10ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and internal employability, but only when career self-efficacy is high*

***H11i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and turnover intentions, but only when career self-efficacy is high*
***H11ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and turnover intentions, but only when career self-efficacy is high*

***H12i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and psychological contract fulfilment, but only when career self-efficacy is high*
***H12ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and psychological contract fulfilment, but only when career self-efficacy is high*

3.4. The Moderating Role of Talent Philosophies

Employees do not live in a vacuum; hence, it is crucial to understand the contextual principles that set conditions under which career resources are related to career outcomes through career crafting. The longitudinal effect of career resources is likely to vary based on the organisational context. For example, the relationship between career resources and career outcomes is likely to differ between a company where a small group of talented employees exclusively receive career inducements and another company where there is equal distribution of career resources. This study thus proposes an overlap between individuals and the

organisation's talent philosophy as the contextual condition that facilitates the expression of career crafting by individuals having adequate career resources in the form of career inducements. Studies indicate that a larger percentage of organisations have an active talent management (TM) program (Collings, Mellahi, & Cascio, 2019; Dries, Marascaux, & Van Zelderen, 2022). However, technological advancements and fast-paced work environments pose several challenges for employers. The growing focus is on individuals who can manage their careers while also recognising the role of organisations in providing talent development activities geared towards career self-management (Garavan, Carbery, & Rock, 2012). Limited studies incorporating talent management into careers research have focused on talent status and talent management programs, with less attention paid to talent philosophies upon which other talent management constructs are fashioned. This inference is necessary because TM practices may be implemented in different ways and have a differential impact on employees depending on the inherent talent philosophies of leaders and the way it is perceived by employees (Meyers & Van Woerkom, 2014). Based on COR theory (Hobfoll, 1989), organisational conditions, as defined by the utilised talent philosophy, determine how individual and contextual resources interact to influence individuals' motivational states and outcomes.

Talent philosophies refer to the fundamental assumptions and beliefs of an organisation's key decision-makers about the nature, value, and instrumentality of talent (Meyers & Van Woerkom, 2014). Where some scholars and business leaders hold an exclusive notion of TM, meaning that only a few people can be categorised as talent, others argue for its inclusivity and believe everyone has a specific talent (Iles et al., 2010; Sonnenberg et al., 2014; Meyers & Van Woerkom, 2014). Also, some researchers and practitioners assume that talent is stable, rare, and gifted to only a minority of the population. In contrast, others believe it is procurable and developable through systematic development initiatives (Meyers et al., 2013). The tension between exclusive vs inclusive TM and innate vs acquired talents was combined to produce four distinct talent philosophies, namely exclusive/stable, exclusive/developable, inclusive/stable, and inclusive/developable (Meyers & Van Woerkom, 2014). The exclusive/stable talent philosophy defines talent as those with natural ability, skills, competencies, personality, and intelligence. As a genetic construct, these characteristics are considered stable, unique, and irrevocable, relatable to less than twenty per cent of an organisation's population (Burkus & Osula, 2011; Meyers & Van Woerkom, 2014). In the exclusive/developable talent philosophy, talent is conceptualised as a rare and latent construct that can translate into excellent performance if groomed (Gagné, 2004). This group of employees identified as high potentials comprise about ten to fifteen per cent of the total population and are afforded development opportunities to reveal their prospects (Meyers

et al., 2020). The inclusive/stable talent philosophy assumes that every employee possesses unique and positive traits that result in superior performance (Peterson & Seligman, 2004; Seligman & Csikszentmihalyi, 2014). The inclusive/developable talent philosophy is built upon the belief that ordinary employees can become extraordinary performers in almost any domain through focused training and developmental programs (Dweck, 2012; Meyers & Van Woerkom, 2014). Despite the recurrent citations of the impact of organisation-level TM construct on employees' behaviours, it is astounding that these philosophies have not been adequately explored empirically.

Following its debut in 2001 (Michaels, Handfield-Jones, & Axelrod, 2001), talent management has evolved into and remains a critical agenda for organisation executives who recognise the role of a highly skilled and motivated workforce in the overall performance and competitive advantage of the business. It is more so important in the unprecedented and complex world of today's business environment characterised by digitalisation, global competition, innovation, and demographic changes (Gallardo-Gallardo et al., 2020; Harsch & Festing, 2020). According to Beechler & Woodward (2009), attracting and retaining talents considered irreplaceable renewable resources is becoming difficult owing to demographic and psychological trends. Talent management has equally gained widespread interest in scholarly debate, evidenced by an enormous increase in conceptual and empirical publications since 2010 (Gallardo-Gallardo et al., 2015). In defining talent management, different perspectives and assumptions have emerged. This echoes the lack of consensus on the definition of talent management. According to CIPD (2006), TM is defined as the "systematic attraction, identification, development, engagement/retention and deployment of those individuals with high potential, who are of particular value to an organisation". In other words, this perspective focuses on a talent pool that separates high from low performers and provides relevant opportunities to the former (Iles et al., 2010). Though it is discussed that having a workforce made up of top performers seems ideal, it is impractical. Identifying employees' talent cannot be done before joining the organisation, and different jobs require diverse competency levels (Boudreau & Ramstad, 2005). Another definition of TM is premised on systematically identifying key positions contributing to attaining organisational goals. For Collings and Mellahi (2009), TM concerns the systematic identification of key positions that can contribute to sustainable competitive advantage, the processes associated with identifying the right individuals to fill these positions and the activities to ensure their continued commitment to the organisation. This entails distinguishing strategic from non-strategic jobs, which can be at the top and lower levels of the organisation, and differentially investing in strategic positions (Collings & Mellahi, 2009). Incongruence in defining TM has been attributed to perceived inadequacies of understanding the underlying construct, talent (Tansley et al., 2007).

According to the object approach, talent is defined as innate ability, above-average aptitude, and exceptional characteristics to excel in any domain (Tansley, 2011). Thus, talent is a unique characteristic that can neither be learned nor taught (Buckingham & Vosburgh, 2001). Another school of thought under the object approach describe talent as a skill that can be learnt from deliberate practice because talents are essentially made and not born (Ericsson, Prietula, & Cokely, 2007). Still, scholars within the object approach associate talent with commitment, perseverance and motivation to a set task or organisation (Weiss & Mackay, 2009) and label talent as a perceived fit between the individual's talent and organisational context (Gallardo-Gallardo et al., 2013). In other words, individuals' talent is a factor of the resources within their work context such that employees who thrive in one context may struggle in another (Coulson-Thomas, 2012). The subject approach to talent demarcates between talent as everyone within a specific context and talent as a subset of the larger population (Iles et al., 2010). Talent as everyone, also known as the inclusive subject approach, posits that every employee has the potential to create value for increased profits and organisational performance (Crain, 2009; Tulgan, 2002). An inclusive subject approach is believed to allow equitable distribution of resources across all employees, eliminating reduced morale and commitment from organisations focusing on a few employees labelled 'superstars' (Groysberg et al., 2004). However, this approach has been criticised for being no different than strategic human resource management, which denotes accurate management of all employees within an organisation (Gallardo-Gallardo et al., 2013). This approach is also believed to incur a high cost from investing in all employees rather than a few employees, which is considered more cost-effective (Collings & Mellahi, 2009). Inversely to the inclusive subject approach, the exclusive subject approach categorises talent as an elite subset of the total workforce that demonstrates the highest levels of potential and differentially contributes to organisational goals (Tansley et al., 2007). Increasingly, elite talents have been equated to high performers whose ranking was obtained from their capability and performance over time (Stahl et al., 2007). These groups of employees, commonly referred to as 'A players', have been described as having incomparable skills and abilities and regularly demonstrate expertise within a specified field (Silzer & Dowell, 2010). Other scholars define the subject approach to talent as employees with high levels of potential to outperform and advance faster than their peers (Pepermans et al., 2003; Gallardo-Gallardo et al., 2013). The identification of this group of employees is, in practice, based on past performance data, which has been criticised for its invalid generalisation of talents' potential based on other individual characteristics, owing to the subjective bias of management (Martin & Schmidt, 2010; Pepermans, Vloeberghs, & Perkisas, 2003). Ultimately, both high-performance and high-

potential approaches imply talent exclusiveness, the most widely defended in literature and used in practice (Ready, Conger, & Hill, 2010).

Studies integrating career and talent management indicate that although the talent management and traditional view of organisational careers may be considered outdated, career inducements such as training, advancement opportunities and organisational support are striking in the careers of high-performing employees (Dries et al., 2012; De Vos & Dries, 2013). Specifically, it is argued that the employees in a position to receive 'traditional' career opportunities (or resources) are those considered by the organisation as competent, talented and employable (Dries et al., 2012). Moreover, employees are reported as still being in 'bounded' careers for desiring stability and staying with their organisation (Rodrigues, Guest, & Budjanovcanin, 2016; Dries, Marascaux, & Van Zelderen, 2022). Scholars suggest that organisational career management, that is, organisational practices for employees' career development, targets a small percentage of the organisation, otherwise known as high potentials or talents (Verbruggen, Sels, & Forrier, 2007). As career investments in this group of employees are higher, more resources are purportedly allocated to prevent them from leaving the organisations (Dries et al., 2021). In the same vein, talent status implied or otherwise, is considered an essential determinant of individuals' career opportunities and career decision-making process (Gelens et al., 2013). Ambiguous communication about talent status may create adverse reactions in employees, increasing the risk of psychological contract breaches (Dries & De Gieter, 2014). Since talent status is identity-relevant evidence influencing employees' reactions and actions, it is predicted that talent philosophies identification with the organisation will also be symbolic carriers of meaning and effects to employees. Talent philosophies determine the exclusiveness or inclusiveness of talent management practices and the extent to which resources are unequally allocated. Despite different references to the importance of talent philosophies to talent and career management, it is surprising that there has been only one empirical paper on it, specifically when it has been inferred that talent philosophies guide TM practices and impact employees' reactions (Sparrow & Makram, 2015; De Boeck et al., 2018; Meyers et al., 2020; McDonnell et al., 2021).

Therefore, examining the talent philosophies that inform organisations' talent management or career-inducing practices is essential to advance our understanding of how context is operationalised in careers research. Research suggests that employees whose attributes fit their jobs display positive work attitudes and behaviours (Greguras & Diefendorff, 2009). Also, the more individuals identify with an organisation, the more intrinsically motivated they are to engage in proactive behaviours (Wang, Demerouti, & Le Blanc, 2017). These pieces of evidence suggest that elements of the social context may facilitate or hinder

employee attitudes (Ryan & Deci, 2000). As fit between individuals and an organisation's talent philosophy is one of such elements, it is likely to regulate how career resources translate into employees' career crafting. Individuals are intrinsically motivated to connect with their environment; as such, their involvement in career management activities may depend upon how well they match with the organisation (Malhotra, Sahadev, & Sharom, 2022). Taking a cue from the formation of identification, establishing whether one identifies with the organisation requires the subjective interpretation of one's values and those of the organisation (Pratt, 1998; Malhotra et al., 2022). COR theory focuses on internal and environmental factors in examining the development and protection of resources (Hobfoll, 2001). Thus, employees with a high person-organisation (P-O) talent philosophy fit are likely to share similar motives as the organisation, which determine the career resources they can marshal towards their desired career. According to Rousseau (2001), organisational values indicate to employees the behaviours and attitudes that are facilitated, expected, and rewarded. Perceptions of similarity in talent philosophies as one's organisation could create an environment in which building a career resource pool to engage in proactive career reflection and career construction is facilitated. Conversely, the effect of career resources on career crafting may be weakened if the P-O talent philosophy fit is low. Low P-O, talent philosophy fit, creates an environment of uncertainty, anxiety, and mistrust that limits employees' engagement in proactive career reflection and career construction. From the perspective of COR theory (Hobfoll et al., 2018), it is proposed that a supportive context as a perceived congruence in individuals and the organisation's talent philosophies may heighten the relationship between career resources and career crafting. Owing to the fact that the role of perceived fit in talent philosophies has not yet been investigated, nor has the effect of context been adequately discussed in career research, this study thus proposes that:

> ***H13i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career success, but only when there is talent philosophy fit*
> ***H13ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career success, but only when there is talent philosophy fit*

> ***H14i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career commitment, but only when there is talent philosophy fit*

***H14ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and career commitment, but only when there is talent philosophy fit*

***H15i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and internal employability, but only when there is talent philosophy fit*
***H15ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and internal employability, but only when there is talent philosophy fit*

***H16i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and turnover intentions, but only when there is talent philosophy fit*
***H16ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and turnover intentions, but only when there is talent philosophy fit*

***H17i**: Proactive career reflection will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and psychological contract fulfilment, but only when there is talent philosophy fit*
***H17ii**: Proactive career construction will mediate the relationship between trajectories in (a) job autonomy, (b) supervisor support and (c) organisation career management over time and psychological contract fulfilment, but only when there is talent philosophy fit*

CHAPTER FOUR: METHODOLOGY

4.0. Chapter Summary

This chapter presents the methodology, the system of data collection and the analytical techniques applied in this research. It begins with an overview of the philosophical paradigm informing this research, specifically the discussions for assuming a positivist perspective presented. This is followed by a section on the research method which focuses on quantitative research design, survey development, population, and sampling technique. Finally, the data analysis procedures and ethical considerations of this thesis are discussed.

4.1. Research Philosophy

Every research is informed by an inherent philosophical assumption of what represents valid methods for the development of knowledge (Antwi & Hamza, 2015). Irrespective of the discipline, philosophical inquiry provides the underlying questions about the nature of a subject matter, its origin, the empirical rationale, and the nature of their appropriate methods (Hughes & Sharrock, 1997). Thus, the selection of research methodology is seen as arising from the philosophical beliefs and assumptions that guide the research (Neuman, 2014). Conducting a philosophical review of a study is essential to expanding the researcher's mind to alternative approaches better suited to the research problem. It can also help researchers evaluate the appropriateness of their methodology to control for the risk of questionable results (Holden & Lynch, 2004). The different research paradigms and perspectives are discussed in the following section.

4.1.1. Major Perspectives and Paradigms

Paradigm refers to the development of a scientific study grounded on researchers' beliefs and assumptions about the nature of knowledge and the world (Collins & Hussey, 2009). According to Cohen and Manion (1994), the motivation and process for embarking on a study are composed of ontology (the way a researcher defines reality), epistemology (the process of knowing the truth), axiology (the role of values) and methodology (the procedure employed in investigating the reality). Ontology is a philosophical study of the nature and structure of reality and what can be known about it (Saunders et al., 2019). There are two broad positions, namely objectivism and subjectivism. Objectivism posits that objective entities exist independently of social actors, while subjectivism affirms that social reality is a product of the perceptions and ensuing actions of social actors (Saunders et al., 2019). For instance, the objectivist stance on career resources would focus on the personality characteristics of employees that constitute their career competencies and career capital, aloof of the personal

and social environment. On the contrary, the subjectivist perspective will centre on the structure and content of one's social relations (e.g., perception of support from supervisors) as the core of individuals attaining their career goals. This perspective accentuates the role of agency and context in understanding reality because individuals perceive situations differently.

Epistemology seeks to evaluate claims about the world, particularly the nature of knowledge, through various means of enquiry. Epistemology asks the question: "How is it possible, if it is, for us to gain knowledge of the world?" (Hughes & Sharrock, 1997, p5) "What is the nature of the relationship between the knower or would-be knower and what can be known?" (Guba & Lincoln, 1994, p108). Research distinguishes between three broad epistemological viewpoints: positivism, realism and interpretivism. The philosophical epistemology of positivism focuses on the object of study independent of the researcher. Here, knowledge is validated and established through the scientific approach of direct observation and measurement of reality (Krauss, 2005). The philosophical approach and law-like generalisation of positivism are akin to that practised by physical and natural scientists (Saunders et al., 2019). According to Kerlinger (1966, p.10), the positivist approach entails the "systematic, controlled, empirical, and critical investigation of natural phenomena guided by theory and hypotheses about the presumed relations among such phenomena". It is argued that in using a structured and quantifiable approach, positivist researchers are value-neutral and objective in their analysis of the objects in the world (Al-Ababneh, 2020). Realism upholds a similar philosophical stance as positivism in experiencing reality as independent of the human mind. This branch of epistemology, which adopts a scientific process of knowledge generation, is composed of direct realism and critical realism. While direct realism infers that we experience the world through our senses, implying that what we see is what we get, an essential claim of realism is that our sensations of the world are illusory representations of reality; thus, what we see is not what is (Saunders et al., 2019). According to critical realists, there are two steps to experiencing the world: the object and the sensation it conveys and the mental processing that occurs after those sensations meet our senses. Researchers can only comprehend the realities of the social world by understanding the social structures that produced it. Ultimately, for the critical realists, "what we see is only part of the bigger picture" (Saunders et al., 2019, p.136). Interpretivism is another philosophical perspective that emerged in opposition to positivism to assert that the intricacies of the world cannot be reduced to definite laws and generalisations. The interpretive approach centres on understanding the social world based on the meanings given by the social actors. This philosophy explores how people interpret the world around them based on the actions of

others with whom they interact. Hence, knowledge develops from a subjective and descriptive method specific to each situation (Remenyi et al., 2005).

Axiology focuses on the role of value in producing credible results across all stages of the research process. It is concerned with the kind of knowledge that is intrinsically valuable and essential. The axiological inquiry refers to the ethical considerations of research decisions (Kivunja & Kuyini, 2017). When researchers articulate the ethics and values that guide their research conduct and judgement, they validate their axiological skills. It is also asserted that the choice of a research topic, philosophical approach and data collection technique is an expression of one's values (Saunders et al., 2019, p.136). Our values guide our actions (Heron, 1996). While, axiologically, positivist researchers assume an independent, objective and value-free approach, realists embrace their beliefs and experiences in their research conduct. Research for the realist is value-laden. For interpretivist researchers, individuals cannot be detached from their subject of interest because research is value-bound.

The selection of a philosophical paradigm grounded in the ontology, epistemology and axiology of what is being researched informs the methodological choice. Methodology encompasses the design, methods, and techniques implemented to obtain knowledge about a research problem (Kivunja & Kuyini, 2017). The methodological question is "How can the inquirer (would-be-knower) go about finding out whatever he or she believes can be known?" (Guba & Lincoln, 1994, p108). The answer for the positivist lies in the use of highly structured and quantifiable measurements of large samples. For the realist, it is in methods that fit the subject matter and for the interpretivist, in the thorough and qualitative analysis of small samples (Saunders et al., 2019). The positivist and critical realist paradigms reinforce quantitative methodology that focuses on measuring variables and testing hypotheses associated with generalisations (Marczyk et al., 2010).

4.1.2. Research Philosophy in Careers Research

The positivist perspective remains prevalent despite the evolution of the careers field from the traditional, hierarchical career to a more boundaryless, agency-led career (Cohen et al., 2004). Historically, there has been an emphasis on quantitative methods in the careers field to foreground structure over individual actors (Stead et al., 2012). It is believed that the overriding focus of careers research on the individual career agent, evidenced by topics such as career success, career decisions, transitions and employability, and the ease with which these constructs can be measured using quantitative methods, account for the supremacy of the positivist paradigm (Baruch et al., 2015; Akkermans et al., 2021). Careers research

significantly relies on hypotheses testing of antecedents and consequences of topics which are not manifest, with the purpose of generalising the findings to explain and predict comparable situations. In the last two decades, methodologies in careers research appear to have improved in sophistication (Wang & Wanberg, 2017). This is supported by a recent analysis of the methods employed in career studies which found a large diversity of quantitative approaches comprised of scale development, regression analysis, structural equation modelling and group comparisons (Akkermans et al., 2021).

Although earlier and some nascent studies follow the positivist epistemology, scholars suggest that the reality of careers is socially constructed and difficult to understand using scientific methods (Richardson et al., 2022). According to Cohen and colleagues (2004, p.408), social constructionist (relatively called interpretivism) ontology and epistemology that elucidate the relationship between individuals, organisations, and the broader social context "illuminates aspects of the career that are obscured by more positivist approaches". It is argued that investigating individual accounts of career experiences by adopting a narrative (qualitative) approach instead of hypotheses testing provides a nuanced reflection of the career phenomenon and context (Richardson et al., 2022). This would seem like the ideal paradigm in studying careers shown to unfold over time; however, qualitative research has been accused of being static in its design. Similarly, among the enormous quantitative studies dominating careers research, very few adopted a dynamic methodology, specifically functional clustering and latent growth models, to study changes over time (Hofmans, Vantilborgh, & Solinger, 2018). This finding spotlights a gap in approaches and methodologies of the careers field that could benefit from alternative ways of examining career processes.

4.1.3. Positivist Position of This Study

This study assumes a positivist paradigm in investigating the phenomena of career resources and how it ignites employees' career crafting towards the attainment of their goals. Positivism evaluates consistencies and relationships between variables and encapsulates identified patterns into generalised findings (Bonache, 2021). It quantitatively explains how variables interact, shape actions, and produce outcomes. According to this paradigm, the way to study careers is through simple hypotheses and rational investigation of career constructs with the experimental observation of individuals to produce law-like results that predict patterns of behaviours. With objectivism and repeatability at the core of positivist ontology, this study provides a deductive (verifiable) explanation of how career resources over time impact employees' proactive career behaviour and outcomes across multiple organisations. Positivists also adopt a realism approach to studying the social world by measuring a theory

or experiences (O'Leary, 2004; Cohen, Manion, & Morrison, 2007). This means that the reality of career processes, which is not arbitrated by our senses, exists independently of the researcher (Pring, 2000; Scotland, 2012). In contrast to interpretivism, which considers truth to be based on a subjective interpretation of the object of study (Ardalan, 2018), positivism asserts that whatever is posited, independent of human understanding or bias, is indeed the truth (Saunders et al., 2019). By the same logic, this study assumes organisations and their actors (i.e., employees) as real entities that can be measured using quantifiable data. Positivists employ an unbiased approach to studying objects and reality to understand how causes impact effects to produce authoritative knowledge (Creswell, 2009; Scotland, 2012). This position is essential to identify different career resources at varying levels of the organisation and how they combine to stimulate employees' career crafting and career outcomes. The epistemology that individual work characteristics, supervisors' actions and organisational practices have a combined effect on the perception and reactions of employees can best be validated with research methods associated with a positivist paradigm. Beyond advancing the literature, findings from this research can have vital imports at work.

Positivism is commonly associated with quantitative methods of analysis. This method relies on a highly structured, numerical assessment of large data representative of a population. The positivist methodology uses random samples, variables, control groups and empirical tests to assess the interactions between theorised antecedents and outcomes that become the basis for prediction and generalisation (Scotland, 2012). In other words, positivist researchers draw logical conclusions from numbers contained in surveys, experiments, and statistical measures (Neuman, 2014). It is suggested that the strategies of the positivist research methodology characterised by scientific approaches produce outcomes with internal validity (Aliyu, Bello, Kasim, & Martin, 2014). Although this methodology may appear rigid and inapplicable in social science, creating hypotheses with specific variables and subjecting them to parsimonious testing, such as latent growth modelling, restricts the influence of the researcher on the object of research. While dominant in careers study, the association between positivist research and quantitative methods must ensure methodological fit, which is essential for producing quality organisational research (Aliyu et al., 2014). Methodological fit refers to the internal consistency among the research question, prior work, research design and contribution to literature (Edmondson & McManus, 2007). It focuses on asking and answering the right question with the most effective method because not all methodological tools are suitable for all situations (Bouchard, 1976). According to Edmondson and McManus (2007), management research occurs along a mature to nascent scale. The mature theory is based on established variables and models examined over time with increased accuracy, while the nascent theory represents tentative answers to new questions and connections. The

mature approach utilises statistical analysis of hypotheses to investigate the relationship between established constructs to yield new theoretical propositions. From the constructs of this thesis, which are well-established and the relationships of interest, it is asserted that the notion of career resources and its effect on career crafting and career outcomes is positioned within the mature theory. This research seeks to ask whether the relationship between career resources and career resources is mediated by career crafting and if the pathway from career resources to career crafting changes as a function of career self-efficacy and talent philosophies. Models supported by quantitative methods of variables with reliable and valid measures are identified as appropriate for organisational research in mature theory literature (Edmondson & McManus, 2007). Therefore, careful evaluation of the positivist methodology reveals its suitability to this thesis, which aims to advance the notion of career resources using established constructs (i.e., job autonomy, supervisor support and organisational career management) and to investigate its effect on career crafting and career outcomes.

4.2. Research Method

4.2.1. Research Design

Based on the positivist research paradigm of this thesis, this study was designed using a quantitative method. Quantitative research design utilises empirical studies and valid and reliable measurements to make generalisations about a sample population (Newman & Ridenour, 1998). Every quantitative research aims to test theories devoid of bias deductively, control for alternative explanations and produce results that can be replicated and generalised (Creswell, 2014). Compared to the qualitative measurement approach, where data is varied and non-standard, the quantitative system adopts a deductive process of moving from theoretical ideas to standardised numerical information (Neuman, 2014). This key feature of the quantitative design is essential to obtain results that empirically represent a population. The quantitative method comprises three vital measurement elements: a construct, a measure, and an analytical tool. This method is rooted in a language of research that focuses on measuring variables and testing hypotheses (Neuman, 2014). Guided by the conservation of resources theory, which focuses on employees' actions to protect, replenish, invest, and retain resources, the purpose of this study is assessed - to dynamically test the relationship between career resources, career crafting and varied career success. Employees require resources to achieve their career goals or to buffer the effect of inadequate resources through investment. This relationship describes a form of change in career resources. Similar research underpinned by COR theory adopts a quantitative methodology; as this study builds on prior research, a quantitative approach is considered most appropriate.

Quantitative data was collected through survey distribution. This method aligns with mainstream empirical careers studies. While cross-sectional quantitative approaches have been consistently used to examine career-related constructs, there is a demand for more longitudinal methods in the literature (Lent et al., 2019). The central goal of longitudinal research design is to understand the change in the variables of interest using a minimum of three repeated measurements (Liu, Mo, Song, & Wang, 2016). It is evidenced that evaluating more time periods increases the number of observations and, thus, reliability (Ployhart & Ward, 2011). While there are three commonly used longitudinal designs, namely repeated cross-sectional studies, retrospective longitudinal studies and prospective longitudinal studies, prospective studies are considered the most longitudinal (Ruspini, 2004). This approach allows for the repeated observation of the same subjects on the same variables over a period of time. The strengths of longitudinal research over cross-sectional studies are that it provides a better insight into the causal relationship between constructs, creates the avenue to link individual dynamics with social dynamics and allows for the construction of more complicated behavioural models (ibid.). Thus, a longitudinal design of questionnaires across multiple time points was used to collate information on the measures of career resources, proactive career reflection and career construction, and career outcomes. Examining the dynamic nature of the chosen constructs requires collecting repeated measurements over time from the same units of observation to capture within-unit change across time or growth trajectories and between-unit differences in change (Ployhart & Vandenberg, 2010). Specifically, the independent variables - measures of career resources (i.e., autonomy, supervisor support and organisation career management) and mediators – career reflection and career construction were measured at all six-time points. In comparison, the outcomes and control variables were measured during the first and final three months of the study. These timings suggest a monthly diary study which describes an intensive longitudinal method allowing for sequences of repeated measurement of individuals adequate to identify the causes and effects of change (Bolger & Laurenceau, 2013). This is an appropriate method to reduce the negative impact of common method bias from having a common measurement subject and context (Podsakoff et al., 2003). Besides, it is argued that variability in a construct at one time differs from variability in a construct over time, with the latter associated with examining actual change in principal variables (Ployhart & Vandenberg, 2010). Analysis of true change of this nature is best conducted using a longitudinal research design. Despite the limitation of this approach regarding cost, complexity in execution and the likelihood of sample attrition (Oppenheim, 2000), a monthly diary study is advantageous for examining how employees' career resources grow or decline over time and how these trajectories impact their proactive career reflection, career construction and career outcomes. In other words, a longitudinal diary study allows for testing trajectories in resources and behaviours.

The following section provides a detailed account of the sample characteristics and procedure for data collection. This section is followed by an overview of the measures utilised and the data analysis techniques employed.

4.2.3. Sample and Procedure

The samples for this study were drawn using a non-probability convenience sampling approach. This is a commonly used sampling method in organisation studies whereby participants are recruited to a study having fulfilled the inclusion criteria. Whereas in probability sampling, every member of the target population has an even chance of being selected in a study (Oppenheim, 2000), in nonprobability sampling, randomisation is not essential, and a subject approach is used to determine elements included in the sample (Etikan, Musa, & Alkassim, 2016). Non-probability convenience sampling is beneficial in terms of its affordability, ease of use and availability of respondents (ibid.). This sampling approach is like snowballing sampling, where the researcher begins with a readily available sample and increases by asking participants to recruit other prospective participants (Koerber & McMichael, 2008). However, researchers using a convenience sample are cautioned not to generalise beyond the scope of the sample (Koerber & McMichael, 2008). This is especially pertinent to quantitative research emphasising generalisation (Delice, 2010). There has been a growth of quantitative research in the use of non-probability convenience sampling to maximise response rate and access readily available samples (Asiamah, Mensah, & Oteng-Abayie, 2022). However, recruiting employee samples directly from organisations remains challenging, particularly for research students with time constraints.

Primary data collection was employed in this thesis. Primary data is chosen over secondary data because the measures can be tailored to the specific research problem to be examined (Hox & Boeije, 2005). This approach guarantees that the information gathered is consistent with the research problem. Although this research design can be onerous for participants, is expensive and entails intricate data management and analysis, it is vital to discern the change processes and ascertain the qualities of a large population from a small group (Bolger & Laurenceau, 2013; Creswell, 2014). At the outset of data collection, the plan was to invite employees of two financial institutions in Nigeria to participate in this study. This decision was based on the network built from having worked in a similar financial institution for two years and having obtained an indication of interest from both organisations to participate in the study. This thesis was initially a dyadic study examining the impact of perceived congruence and incongruence in talent philosophies between supervisors and

subordinates on employees' reactions and outcomes. Owing to the purpose of the study, the intended approach for data collection was to circulate a recruitment notice through representatives of the participating organisations asking employees and line managers who have worked in the organisation for a minimum of one year and wished to participate in the study to opt into a participation link. The email addresses of interested participants were to be stored by the leading researcher in password-protected files. Line managers and direct reports who met the set-out criteria and indicated their interest in participating in the study were to be contacted directly via email and provided with a link to the questionnaires hosted by an online survey provider (Qualtrics). This approach was to enable seamless matching of managers to subordinates. Due to stumbling blocks regarding non-disclosure agreements, differences in data protection regulations between the UK and Nigeria and concerns about cyber security threats, these samples could not be obtained. Other attempts to recruit employees from two additional organisations in Nigeria were equally unsuccessful. This setback was further exacerbated by the Covid-19 pandemic, which restricted the researcher from exploring other data collection approaches, such as paper-based surveys. With the time limitations of the PhD in mind, modifications were made to the previous study, and an alternative means of obtaining authentic samples was utilised.

Convenience sampling via crowdsourcing platforms as prolific, a GDPR-compliant, online data collection platform was used to reach a rich and diverse sample of participants. Prolific is a recently developed platform for online recruitment of participants following quality standards, with a potential for functionality advancement. The use of crowdsourcing platforms like Prolific in social sciences has grown substantially in the past decade, evidenced by more than 1,500 studies published in 2017 (Palan & Schitter, 2018). For instance, participants were recruited from Prolific for multi-wave research on the hidden dark side of empowering leadership (Dennerlein & Kirkman, 2022). Equally, 258 full-time employees in the United States were recruited from Prolific to examine the dynamic interaction between social job characteristics and work exhaustion (Windeler, Chudoba, & Sundrup, 2017). This increase in the use of crowdsourcing platforms is attributed to the convenience of running online research following the Covid-19 pandemic of 2020 and the subsequent dominance of remote working. Not only are online recruitment of participants affordable, but they also enable researchers to reach large and diverse populations (Chandler et al., 2019). To regulate the eligibility of individuals who sign up to the crowdsourcing platform of prolific as participants, individuals' identities are verified using emails, phone numbers, photo IDs and pre-screening questions. The answers to these pre-screening questions are also used to filter participants based on a range of conditions such as demographics, supervisory level, industry, tenure in the organisation etc. As with any discipline, data quality is core to the validity of any research for

academic publication and practical application (Eyal et al., 2021). Likewise, the data quality from Prolific is appraised as satisfactory compared with other convenience samples, and participants have a lower propensity for dishonesty (Peer et al., 2017). Participants on the prolific platform are also shown to pay attention to instructions and steadily complete surveys cautiously (ibid.). One shortcoming of crowdsourcing platforms is the inability to have in-person contact with participants. However, researchers can send direct messages to participants through the prolific platform, which are, in turn, sent to participants' registered emails (Stanton et al., 2022). Although the representativeness of participants has been queried still, online platforms data are found to be no different from traditional sourced samples and more indicative of typical working adults (Porter, Outlaw, Gale, & Cho, 2019). Despite the limitations of online recruiting, such as the lack of control over the environment and difficulty in verifying participants' identities, these platforms are found to produce high-quality data useful for complex longitudinal studies (Palan & Schitter, 2018; Stanton et al., 2022).

Questions for participants of this study were developed in a survey format. The survey is the most habitually used approach to answer different research questions on crowdsourcing platforms that allow for data collection from many people. It is also an approach often used to explain the relationship between variables, with findings that can represent an entire population (Saunders, Lewis, & Thornhill, 2019). Following the purpose of this study, which is to examine the relationship between career resources and career crafting of employees in the UK, obtaining data from a relatively large number of people, specifically 200 people, were deemed adequate to represent the wider UK working population. Hence, 350 participants were recruited at time one, and data collection was halted at time point six with 203 completed responses. Of the 203 respondents, 50.2% were female, and 66.5% had at least a bachelor's degree. Participants were employed in a variety of industries (e.g., manufacturing, retail, hospitality, education, and technology), and 57.4% had lower-level jobs, 37.3% middle-level and 5.3% senior management. The sample consisted of relatively young employees, as 67.5% were between 18 and 39 years old, 29.6% were between 40 and 59, and 2.9% were more than 60 years old. For this study, self-completed questionnaires developed on the SoSci survey (a widely used professional survey software) were administered electronically to participants. The surveys consisted of custom template questionnaires, and the link to the set of questions was posted on the Prolific website for pre-screened participants to complete. Beyond the nature of the data collection platform, Prolific, which only allows for self-administered questionnaires, this data collection method minimises interviewer bias and certifies accurate sampling and a high response rate (Oppenheim, 2000). More so, lethal biases obtained from using go-betweens or organisation representatives to administer the questionnaires to participants are curtailed on Prolific.

As this is a longitudinal study across six months, six surveys were designed to collect repeated measures of career resources, career crafting and career outcomes from the same respondents. Whereas job autonomy, supervisor support, and organisational career management as indicators of career resources and career crafting were collected each month, the outcomes were measured only in the first, fourth, fifth and sixth months. Closed questions across five response scales were used because it requires less time, allow for easy and quick answers, and makes data easier to process; however, the chance to query further and obtain spontaneous responses is lost (Oppenheim, 2000). Still, closed questions are fundamental to testing precise hypotheses, comparing participants' responses across the six-time points, and examining individual differences. Although there is a potential for participants to modify their responses owing to familiarity with repeated questions, this survey design is acclaimed for making unique contributions to knowledge (Oppenheim, 2000). Additionally, classical questions of demographic and work characteristics of participants, for instance, age, education, language, working years, employment status, and industry type, were included on the last questions page of the first questionnaire at month one. It is suggested that personal data questions should always be placed near the end of a questionnaire as it can be disconcerting to people (Oppenheim, 2000).

Using the pre-screening function on Prolific, participants were filtered based on their full-time work status, English fluency, location in the UK and access to direct supervision. These criteria were to ensure participants were individuals who had access to career resources in their current organisation and could assess the impact of these resources on their career crafting and career goals. Additionally, participants with at least 20 previous submissions were included in the study to obtain active and committed respondents. For participants' characteristics, there was an equal ratio of males to females to allow the UK working population signed up on Prolific to have an equal probability of being selected. Essentially, these selection criteria were set to produce a sample representative of the UK working population. A link to the study was posted on Prolific at each time point for participants to access. For questions lasting approximately 10 minutes (time points 1, 4 to 6), participants were paid £1.50 and £0.75 for 6 minutes (time points 2 to 3). Respondents that completed all six questionnaires were paid a bonus of £7.

To increase response rates, a short description of the study and what participants would be doing was shared on Prolific. Information regarding research aims and purpose, how participants were chosen, answering procedures, incentives for completion and bonus payment, and the study duration and length of each survey were published on Prolific. This

short briefing, alongside the detailed information sheet on the first page of the survey, was provided to participants at each time point. Explicit statements about how the data and individual responses are being treated as confidential were equally communicated to overcome likely trepidations. To ensure the anonymity of respondents, individuals' unique Prolific identification codes were used in sending reminders, follow-up questionnaires and matching collated data across the time points. The questionnaire length, which alternated between six and ten minutes, was kept simple and short for ease of understanding and to increase the rate of returns. Also, the pertinence of the study and measured variables to individuals' careers was deemed adequate to establish and sustain an affinity to complete the survey.

4.2.4. Measures

Job autonomy was assessed using the three-item scale developed by Hackman and Oldham (1980) and revised by (Morgeson, Delaney-Klinger and Hemingway (2005). The responses ranged from (1) strongly agree to (5) strongly disagree. Items include, "I have significant autonomy in determining how I do my job", "I can decide on my own how to go about doing my work", and "I have considerable opportunity for independence and freedom in how I do my job". Scale reliability for this measure across all six-time points was > 0.90.

Supervisor support for career development was measured using the scale developed by Greenhaus, Parasuraman and Wormley (1990). The seven-item scale comprises responses ranging from (1) strongly agree to (5) strongly disagree. Sample items include, "My supervisor cares about whether or not I achieve my career goals" and "My supervisor keeps me informed about different career opportunities for me in the organisation". Cronbach's alpha for this construct for the six-time points was > 0.93.

Organisational career management was measured using seven items of the original ten-item scale developed by Sturges and colleagues (2002). The items removed were analogous to the questions for supervisor support: "My boss has taught things I need to know to get on in this organisation", "My boss has given me clear feedback on my performance", and "My boss has introduced me to people who will help my career". All seven selected items were related to formal and informal career management practices, and participants responded on a scale which ranged from (1) strongly agree to (5) strongly disagree. Sample items of the utilised instruments are "I have been given a personal development plan" and "I have been given training to help develop my career". Scale reliability for this measure was > 0.87.

Career crafting was measured using the eight-item scale developed by Tims and Akkermans (2020). This scale comprises two dimensions: proactive career reflection and proactive career construction. Sample items for the proactive career reflection dimension include “I assess for myself what I really value in my career” and “I explore the possibilities available to me to continue developing myself”. Sample items for the proactive career construction dimension are “I deliberately show others what I am good at” and “If I need to make a strong impression on others to achieve my own goals, I make sure I clearly show them what I am capable of”. Both dimensions were assessed using four items, each with responses ranging from (1) never to (5) always. Scale reliabilities for proactive career reflection ($\alpha > 0.90$) and proactive career construction ($\alpha > 0.85$) across six-time points were good.

Career success (*subjective)* was measured using the scale developed by Greenhaus, Parasuraman and Wormley (1990). The five-item scale comprises responses ranging from (1) strongly disagree to (5) strongly agree. Sample items include, “I am satisfied with the success I have achieved in my career” and “I am satisfied with the progress I have made toward meeting my goals for advancement”. Cronbach’s alpha for this scale was > 0.94.

Career success (*objective)* was measured using the number of promotions employees had received in the organisation and across the lifespan of their careers. Also, participants were asked about their annual salary as an additional measure of objective career success.

Internal employability was measured at time point one and time points four to six using the scale from a study by De Cuyper and De Witte (2010). Sample items were “I am confident that I could quickly get a similar job with this employer” and “I could easily switch to another job with this employer if I wanted to”. Responses ranged from (1) strongly disagree to (5) strongly agree, and reliability was > 0.93.

Career commitment was assessed with seven items drawn from earlier research and employed in the study by Blau (1985). Items of the original scale developed to measure career commitment in nursing were modified to fit this study. Sample items include “This is the ideal vocation for a work life” and “If I could do it all over again, I would not choose to work in this profession”. Responses to the items were given on a scale ranging from (1) strongly disagree to (5) strongly agree – reversed for negative items. Scale reliability for this measure was > 0.89.

Turnover intentions was assessed by the three-items instrument developed by Mobley, Horner and Hollingsworth (1978). Responses ranged from (1) strongly disagree to (5) strongly agree. Items were “I often think of leaving the organisation”, “I intend to look for a new

job within the next year", and "If I could choose again, I would not work for this organisation". Cronbach's alpha for this instrument was > 0.81.

Psychological contract fulfilment was measured using a scale from the study by Coyle-Shapiro and Conway (2005) that encapsulated aspects of the employment relationship examined in earlier studies. At time one, participants were asked to indicate the extent to which they believed their employer was obliged to provide a range of twelve items such as "good career prospects" and "fair pay compared to employees doing similar work in other organisations". Responses were provided on a scale ranging from (1), not at all, to (5), a very great extent. At times four to six, participants were asked to indicate the extent to which their employer had fulfilled its obligation of the list of items provided in time one. Respondents answered using the same Likert scale: (1) not at all to (5) a very great extent. Scale reliability for this measure was > 0.89.

Career self-efficacy was assessed using the eleven-item scale by Kossek and colleagues (1998). Sample items comprise "When I set important career goals for myself, I rarely achieve them" and "I rely on myself to accomplish my career goals". Responses were indicated on a scale ranging from (1) strongly disagree to (5) strongly agree – reversed for negative items. Cronbach's alpha for this instrument was > 0.83.

Talent philosophy – the belief that talent is stable was measured using a three-item scale adapted from the study by (Levy & Dweck, 1997). Scale items include "The kind of person someone is, is something very basic about them and it can't be changed very much", "Everyone is a certain kind of person, and there is not much that can be done to really change that" and "People can do things differently, but the important parts of who they are can't really be changed". The five-point Likert scale ranged from (1) strongly disagree to (5) strongly agree. Participants were also asked to provide responses that indicated the position of the organisation on the stable beliefs of talent, with the scale ranging from (1) strongly disagree to (5) strongly agree. Scale reliabilities for individuals' beliefs that talent is stable ($\alpha > 0.77$) and the perception of their organisation's definition of talent as stable ($\alpha > 0.83$) were good.

Talent philosophy – the belief that talent is inclusive was measured using the six-item scale developed by Iles and colleagues (2010) and used in the study by Meyers and colleagues (2020). Sample items include "A talent is not something everyone possesses, but just the lucky few" and "Everyone is gifted in one way or another, but we need to offer the right context to develop those gifts into talents". For the six time points, participants were asked to indicate whether the items reflected their position on a scale of (1) not at all my position to (5)

completely my position. The three items indicating exclusive beliefs of talent were reversed so that a higher score on the scale signified inclusive beliefs of talent. To measure whether respondents believed the same six items reflected the official position of their company, they were asked to respond to a 5-point Likert scale (1) not at all the position of my company to (5) completely the position of my company at time points one, four, five and six. Scale reliabilities for individuals' beliefs that talent is inclusive ($\alpha < 0.48$) and the perception of their organisation's definition of talent as inclusive ($\alpha < 0.53$) were poor. The low internal consistency may be attributed to misunderstanding in interpretation found in earlier studies in which the three items of inclusive beliefs of talent produced confusing results (Pantouvakis & Karakasnaki, 2018).

Control variables were obtained from respondents' information about their demographics, background, and job characteristics. Earlier career research hints that the following individual and contextual variables should be controlled for age, gender, educational level, organisation size, organisation tenure in years, working hours per week, and industry sector (Seibert et al., 2001; Ng et al., 2005; Haenggli & Hirschi, 2020; Janssen et al., 2021).

4.3. Approach to Data Analysis

As discussed in the earlier sections, this research employs quantitative data to investigate the relationship between career constructs at different time points. With the availability of reliable and valid measures for the chosen constructs, statistical analysis began with the reliability test of the scales. The reliability of a measure depicts its consistency (Bryman & Cramer, 2011). Whereas external reliability refers to the degree of stability of an instrument over time, internal consistency seeks to assert cohesion within multiple-item scales (ibid.). Internal consistency – the relationship between results obtained from a survey is essential to confirm that questions of each scale measure a single idea (Roberts & Priest, 2006). The internal consistency of individual items in this study, coded in the same direction, was assessed using Cronbach's alpha coefficient (Cronbach, 1951). Reliability is the proportion of variability in a measure on account of the true score and not errors. A reliability of 0.8 indicates that 80 per cent of the variability in the observed score is true, and 20 per cent is due to error (Roberts & Priest, 2006). Measures above the 0.70 criterion are considered internally reliable (Bryman & Cramer, 2011).

Validity in quantitative research is concerned with whether the measurement tool accurately denotes what it claims to measure. Although there are different validity tests, content and construct validity are deemed sufficient for assessing previously developed scales, such as those employed in this study (Punch, 2013). Content validity is a qualitative

type of validity that describes the relevance of items in a survey to the intended purpose (Roberts & Priest, 2006). It seeks to establish that the measures use the most appropriate expressions to ensure the representativeness of items. According to Bollen (1989), the majority of concepts in social sciences have no consensus on theoretical definition; therefore, it is the task of a researcher to provide an academic definition that is widely accepted and represents the dimensions of study. This suggests that literature reviews and theoretical descriptions of the chosen career concepts of this thesis can achieve content validity. Construct validity involves illustrating the relationship between the variables under study; for instance, career resources comprising autonomy, supervisor support and organisation career management relate to one another to enable employees to achieve their career goals. Construct validity can be tested using discriminant and convergent validities. Discriminant validity tests for divergence between conceptually distinct measures, such that constructs that should have no relationship do not have any relationship, and construct validity tests the convergence among different measures (Drost, 2011). To verify construct validity, confirmatory factor analysis for all scales grouped into ten latent dimensions was conducted (Jackson et al., 2009).

Confirmatory factor analysis (CFA) is a form of structural equation modelling that assesses the relationships between latent constructs and observed indicators. A factor analysis aims to establish the clusters of variables that are closely linked together and account for the variation and covariation among a set of indicators or measures (Brown & Moore, 2012). Hence, a factor analysis such as CFA offers a parsimonious understanding of the correlation among a set of indicators. Unlike exploratory factor analysis (EFA), which is a probing technique to determine the appropriate number of correlated factors, CFA specifies the number of factors in advance and the pattern of relationship among the constructs (Brown & Moore, 2012). It also provides the analytical opportunity for examining factor invariance across time (Brown, 2015). Factor or measurement invariance indicates that longitudinal or repeated measures of constructs are stable over pre-determined time points. Measurement invariance begins with configural invariance to test that the same variable underlies the same measure at each measurement occasion (Vandenberg & Lance, 2000). This is the baseline model. If configural invariance holds, metric invariance is conducted to check whether measures are computed to construct using the same scale at each time point (Ployhart & Vandenberg, 2010). This is evaluated by testing the equivalence of the factor loadings of items across time. Assuming metric invariance is confirmed, scalar invariance is established by requiring the item intercepts to be equivalent across measurement occasions (Bialosiewicz, Murphy, & Berry, 2013). Non-invariance of intercepts may signal the presence of external factors influencing participants' responses across time. Strict invariance is the final level of

invariance that tests if the residual error is equal across time (ibid.). It is purported that strict invariance is highly restricted and scarcely achieved in practice. These different measurement invariance steps were implemented in this thesis. In identifying the appropriate sample size for CFA, it is suggested that the ratio of a sample size to parameters should be no less than five to one, with the sample size ideally greater than 200 (Boomsma, 1982). Also, to prevent problems with estimation and construct interpretation, a minimum of three observed variables is recommended for each latent construct (DiStefano & Hess, 2005).

Following the confirmatory factor and measurement invariance testing, the hypothesised relationships were preliminarily examined in a time-lagged study through a mediated moderation model (see Chapter 5). This conditional process analysis is used to understand the nature by which mechanisms transmit their effect on other variables and assess the hypotheses about these effects (Hayes, 2018). Baron and Kenny (1986) introduced the term “mediated moderation” in describing how the indirect impact of the independent variable X on the outcome variable Y through the mediator M could be contingent on a moderator variable W. This preliminary analysis was conducted using the PROCESS command in SPSS version 27 to show whether all the constructs of this thesis measured at different times have significant correlation with each other in the expected direction.

Latent Growth Curve Modelling (LGCM) is a variant of structural equation modelling that explains change and its form across measurement occasions. This analysis was conducted using Mplus version 8.5 to measure the longitudinal effects between the different domains. A fundamental assumption of LGCM is that change is methodically related to the passage of time over the interested time interval (Duncan & Duncan, 2004). Compared to ANOVA/ANCOVA and multilevel approaches, LGCM incorporates latent variables in analysing different trajectories of change and comparing change across samples. This statistical method allows for better expression of hypotheses, provides enhanced statistical power, and permits upfront examination of variability in change (Preacher et al., 2008). It also seeks to test if the initial level predicts the rate of change, if groups differ in their trajectories, whether the rate of change predicts key outcomes or if change over time in one construct relates to change over time in another construct (ibid.). This approach is particularly important in organisation research wherein theories specify longitudinal processes, but the vast majority of empirical testing employs cross-sectional designs. A longitudinal study aims to examine the change or dynamic nature of main constructs through growth trajectories and/or between-unit differences (Ployhart & Vandenberg, 2010).

In this regard, LGCM analysis conceptualised whether the hypothesised change is linear or nonlinear. The model testing began by estimating the linear change and quadratic change. The linear factor describes individual differences in the constant rate of mean-level change across time; thus, factor loadings were set to 0, 1, 2, etc. (Duncan et al., 1999). For the quadratic change rate, which estimates nonlinear mean-level change across measurement points, factor loadings were fixed to 0, 1, 4, and 9 (ibid.). This stage involved identifying the appropriate growth form that accurately describes individual development and differences in the growth pattern over time. Research shows that three or more time points provide the avenue to test for nonlinear trajectories in individuals (Duncan & Duncan, 2004). Next, lags between the measurement occasions were introduced to test the change between the independent and dependent variables through the mediators. The LGC analysis allowed for the examination of how the latent level and change factors of the predictors are related to the latent aspects of the mediators and outcomes. Also, the possibility that career self-efficacy and talent philosophies moderate the relationship between career resources and career crafting was tested by estimating whether the level of the moderators predicts the latent level and change factors of the predictors. This relationship among constructs was expressed through the statistical test of overall model fit and the mean, variance, and covariance estimates. While lags between variables are powerful in visualising change, care must be taken to ensure the lag is not too short or long (Ployhart & Vandenberg, 2010). Some advantages of LGCM are its ability to integrate both fixed and time-varying covariates, correct for errors in observed indicators, concurrently incorporate growth on several variables and build a common developmental trajectory (Duncan et al., 2013). However, LGCM requires large samples and an equal number and spacing of instruments for all individuals. For a linear LGCM, the intercept factor (starting level) is fixed to 1.0 while the loading for the linear pattern of change from the starting level increases by 1 for each further time point. Models estimate for a linear LGCM include the intercept factor mean, the intercept factor variance, the slope factor mean and the slope factor variance. Results of the basic LGCM and further extensions incorporated in this thesis are presented in more detail in Chapter 5.

4.4. Ethical Considerations

This thesis followed the ethical guidelines for data collection that conforms with Aston University's research code of conduct. This code aligns with the standard for social science research set forth by Bryman (2016). Before the commencement of data collection, ethics approval was obtained from Aston Business School Research Ethics Committee (see Appendix 1). Several ethical criteria were observed before, during and after the research. Firstly, all the measures used in this thesis were adopted from earlier studies published in peer-reviewed journals (Hackman & Oldham, 1980; Greenhaus, Parasuraman & Wormley,

1990; De Cuyper & De Witte, 2010; Tims and Akkermans, 2020). This method presented coverage of compliance regarding the validity, reliability, and ethical standard of the selected instruments. Participants were full-time employees in the UK who had worked in their current organisation for a minimum of one year and had access to direct supervision. These participants were recruited from Prolific, a General Data Protection Regulation (GDPR) compliant online data collection platform. A maximum of 350 respondents participated in the first study, all of whom were recruited to participate in the subsequent five studies. Participants were compensated at the end of each time point, and all 203 participants that completed the six surveys in the sixth month were paid a bonus of £7 (see section 4.2.3. for details about the duration and allocated pay for each survey).

Participants who met the pre-screening criteria and were recruited to the study were provided with appropriate information regarding the purpose, duration and intended use of the study. This information was provided on Prolific at the start of the study point and each invitation to subsequent surveys. To communicate individuals' right to voluntary participation, participants were informed of all aspects of the research that may influence their willingness to participate. They were also provided answers to frequently asked questions. The information sheet about the study communicated the importance of voluntary participation and assurance of anonymity and confidentiality. The confidential nature of data obtained as part of the study was maintained during the data collection and analysis phase and writing of this thesis.

Given that this research aims to examine the impact of career resources on career crafting and career outcomes across multiple organisations, no known risks were identified. Participants were only asked a string of questions regarding their behaviours and perceptions of the organisation's actors and activities. Not including participants' identity and organisation ensured that responses received represented participants' positions. More so, no identifying information beyond demographics (e.g., age and education) were requested of participants. Informed consent in the form of an agreement with the participants was obtained, detailing the aims and purpose of the study, intended use, free will, rights, and protection of participants before the commencement of the survey. The data protection guidelines set out by GDPR (2018) regarding subjects' interests, consent and data processing were followed. Collected data was only accessible by the primary researcher of this thesis and discreetly stored after completing data analysis. Lastly, the study was designed with integrity and assured through transparency about the processes utilised.

CHAPTER FIVE: RESULTS

5.0. Chapter Summary

This chapter presents the findings of the conceptual model testing. It begins with the results of the preliminary analysis, specifically, the reliability and validity assessments, confirmatory factor analysis and measurement invariance testing. Next, the hypothesised relationships of this thesis are preliminarily tested through a cross-lagged model. More specifically, this section includes the findings of the regression analysis for the mediation, main effects and the moderation. This section is followed by the results of the main model testing through latent growth modelling of the indirect relationships. Finally, the results of the interaction effects are presented.

5.1. Preliminary Analyses

This section details the results of the scale validation process. First, the findings of the descriptive statistics are presented. This is followed by the reliability assessment of the utilised scale, confirmatory factor analysis and measurement invariance testing of the constructs in the proposed model across the measurement occasions. The results of the correlation matrix are also provided.

5.1.1. Descriptive Statistics

The means and standard deviations of the study variables are reported in Table 5.1. The means of the six-time points show half a unit drop between time points one and two for the predictors (excluding autonomy) and the mediators, whereas the means for time points two to six remain relatively consistent. Due to a significant drop in mean scores, time point one is excluded from subsequent analyses. Authors suggest that to reduce the effect of outliers (such as time points) on model specification and parameter estimates, one approach is to delete the suspicious observations (Andrews & Pregibon, 1978; Hodge & Austin, 2004).

Table 5.1. Mean and Standard Deviation of the Study variables

	Time 1		Time 2		Time 3		Time 4		Time 5		Time 6	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Predictors												
Autonomy	3.88	0.75	3.80	0.80	3.83	0.82	3.80	0.88	3.82	0.85	3.74	0.92
Support	3.42	0.85	3.07	0.90	3.12	0.91	3.09	0.91	3.03	0.93	2.97	0.95
OCM	3.49	0.80	2.78	0.87	2.89	0.85	2.81	0.91	2.80	0.88	2.69	0.88
Mediators												
Reflection	3.32	0.79	3.13	0.86	3.19	0.93	3.15	0.96	3.08	0.92	3.06	0.94
Construction	3.10	0.78	2.87	0.85	2.93	0.88	2.86	0.92	2.88	0.91	2.83	0.86
Outcomes												
Satisfaction	3.29	0.92					3.29	0.98	3.32	0.94	3.24	0.96
Commitment	3.10	0.94					3.05	0.90	3.05	0.94	3.07	0.94
Employability	3.22	0.98					3.36	0.99	3.28	1.06	3.37	1.05
Turnover	2.70	1.09					2.84	1.16	2.79	1.20	2.72	1.18
Psych. Contract	3.74	0.79					3.18	0.75	3.12	0.73	3.11	0.71
Moderators												
Self-efficacy			3.60	0.58	3.63	0.60	3.66	0.59	3.67	0.61	3.71	0.58
Stable Talent	2.85	0.82	2.87	0.82	2.87	0.85	2.94	0.85	2.92	0.85	2.87	0.82
Org's stable T	2.92	0.79					2.99	0.84	2.98	0.88	2.98	0.85
Inclusive Talent	2.62	0.47	2.58	0.50	2.59	0.47	2.58	0.47	2.63	0.48	2.60	0.47
Org's inclusive T	2.79	0.50					2.78	0.50	2.85	0.49	2.80	0.49

5.1.2. Scale Reliability

The widely used method for demonstrating scale reliability is Cronbach's alpha statistics (Geldhof, Preacher, & Zyphur, 2014). To show good internal consistency, Cronbach's alpha of .70 or above is required (Bryman & Cramer, 2011). Except for individuals' beliefs that talent is inclusive ($\alpha < 0.48$) and the perception of their organisation's definition of talent as inclusive ($\alpha < 0.53$), alpha reliabilities of the scales used in this thesis exceeded .70, indicating that they had adequate levels of reliability. Reliabilities are listed in Table 5.2.

Table 5.2. Scale Reliability indicated by Cronbach's Alpha

		Reliability				
	Number of items	Time 2 *(n = 322)*	Time 3 *(n = 282)*	Time 4 *(n = 253)*	Time 5 *(n = 232)*	Time 6 *(n = 203)*
Predictors						
Autonomy	3	.910	.908	.929	.934	.945
Support	9	.935	.936	.930	.936	.938
OCM	7	.888	.872	.887	.880	.889
Mediators						
Reflection	4	.922	.915	.939	.922	.932
Construction	4	.871	.878	.882	.899	.870
Outcomes						
Satisfaction	5			.940	.938	.952
Commitment	7			.886	.903	.907
Employability	4			.923	.943	.952
Turnover	3			.840	.859	.849
Psych. Contract	12			.903	.898	.892
Moderators						
Self-efficacy	11	.836	.843	.830	.841	.843
Stable Talent	3	.799	.812	.823	.816	.769
Org's stable T	3			.834	.885	.876
Inclusive Talent	6	.480	.381	.427	.456	.386
Org's inclusive T	6			.528	.472	.493

5.1.3. Confirmatory Factor Analysis

After establishing the reliability of the selected career constructs, the next step is providing evidence of construct validity. Construct validity is demonstrated through CFA as it indicates how well items in a questionnaire represent the underlying construct (Rattray & Jones, 2007). The acceptability of a CFA model is based on the overall goodness of fit, the presence or absence of specific points of ill-fit and the statistical significance of the parameter estimates (Brown & Moore, 2012). Chi-square statistic evaluates the goodness of fit to provide information about the extent to which parameter estimates generate the sample correlations (ibid.). However, the chi-square statistic is not used as a sole index of model fit because it is

typically inflated by sample size (Brown, 2015). Other fit indices that are commonly relied on for an examination of model fit are the comparative fit index (CFI), Tucker-Lewis Index (TLI), root mean squared error of approximation (RMSEA) and standard root mean square (SRMR) (Schreiber et al., 2006). SRMR is the mean discrepancy between the correlations in the input matrix and those projected by the model. At the same time, RMSEA is a frequently utilised and recommended index insensitive to sample size. According to Hu & Bentler (1999), a good fit for a model should target having SRMR close to .08 or less, RMSEA values of .06 or below, and CFI and TLI values close to .95 or greater. CFA with maximum likelihood (ML) estimation using Mplus 8.5 software was conducted to examine the fit of the measurement model and the distinctiveness of the repeated constructs.

To determine specific areas of misfit in the CFA, modification indices were computed. Two other statistics used to identify areas of misfit in the CFA are residuals and modification indices. Residuals give information about how the model parameter estimates each variance and covariance. The modification index shows how a model's Chi-square will decrease if the parameters are freely estimated (Brown & Moore, 2012). However, these improvements should only be made if they can be theoretically and empirically justified (MacCallum, Roznowski, & Necowitz, 1992). The final consideration for the CFA model relates to the statistical significance of the parameter estimates. For parameter estimates, factor loadings greater than .70 are considered acceptable as it indicates that the observed variable provides more information about the latent construct than the error variance (Hoogland & Boomsma, 1998). Parameter estimates may also demonstrate poor discriminant validity in situations where factors are highly correlated such that the notion that they represent unique constructs must be rejected. In practice, a CFA model is commonly revised for either inadequate goodness of fit, large modification indices indicating areas of ill-fit or irregular interpretation in parameter estimates (Brown, 2015).

Due to the failure of the full conceptual model to converge in Mplus, the CFA was conducted separately for the predictors, mediators, outcomes, and moderators. A similar approach of testing the predictor, mediator and outcome variables in separate CFAs was used in the study examining the relationship between stressors and employees' health and behaviours through intrinsic motivation (Kim & Beehr, 2018). Owing to the sensitivity of the goodness of fit test to sample size, two items of supervisor support were disregarded before running the CFA for theoretically asking the same question in the survey. Expressly, item two, 'My supervisor cares about whether or not I achieved my career goals', was excluded for item one, 'My supervisor takes the time to learn about my career goals and aspirations'. Also, item five, 'My supervisor gives me helpful feedback about my performance', was excluded for item

six, ‘My supervisor gives me helpful advice about improving my performance when I need it’. Additionally, in a recent study on OCM (Holtschlag et al., 2020), three items of the measurement scale that represent informal practices were excluded. According to these scholars, OCM is a planned and intentional practice initiated by organisations to improve career success (Orpen, 1994); therefore, examining the formal practices alone is deemed appropriate. The reduced scale was adopted in this study, and the removed items from the original scale are ‘impartial advice when I need it’, ‘introduction to people at work who are prepared to help me develop my career’, and ‘a mentor to help my career development’. Also, three reverse-coded items that describe the inclusive beliefs of talent were excluded from the individuals’ and the organisation’s measure of talent philosophy. The items are: ‘everyone has a certain talent’, ‘everyone is gifted in one way or another, but we need to offer the right context to develop those gifts into talents’ and ‘everybody has to discover his or her own talent so that we can assign him or her to the right job’. A recent study found these three additional items to generate confusing results for rephrasing the same idea as the other three items in the scale (Pantouvakis & Karakasnaki, 2018).

For the predictors, this study compared the fit of four models: (1a) a three-factor model with 14 items after reductions using modification indices; (1b) a two-factor model with autonomy as one factor and supervisor support and OCM combined into another factor; (1c) a one-factor model comprised of all 14 predictor items. For the mediators, the fit of three models was compared: (2a) a two-factor model with 7 items after reductions using modification indices; (2b) a one-factor model with 7 items. The excluded item ‘I strengthen my career goal and make sure they remain up to date’ does not diminish the essence of the construct, as career construction refers to proactive behaviours associated with career-related networking and self-profiling (Tims & Akkermans, 2020). For the outcomes, four models were compared: (3a) a five-factor model with 31 items; (3b) a four-factor model with internal employability and turnover combined into one factor; (3c) a three-factor model with career satisfaction and career commitment combined into one factor and internal employability and turnover combined into another factor; (3d) a one-factor model with 31 items. For the moderators, two models were compared: (4a) a five-factor model with 23 items and (4b) a three-factor model with individuals’ beliefs of inclusive and stable talent combined into one factor and organisation’s inclusive and stable talent combined into another factor. The results presented in Table 5.3 shows the overall fit of the data to each model.

Following previous research using latent growth modelling (Bentein et al., 2005), identical items were allowed to covary across measurement occasions. Compared with the competing one-factor and two-factor models, the theoretically proposed 1a three-factor model

with 14 items exhibited a significantly good model fit to the data. Equally, the 2a two-factor model with 7 items fitted the data better than the alternative one-factor model. Similar results in which the theoretically proposed factors revealed better model fit were found for the outcomes and moderators. In many instances, the success of a model modification can be validated using the chi-square difference test (x2 Diff). The chi-square difference testing compared the fit of the proposed models to all subsequent models. The results of the chi-square difference test for the predictors resulted in a significant difference in model fit between the hypothesised 1a model and the substitute 1b (χ^2 [60] = 438.087, p < .001) and 1c models (χ^2 [95] = 1874.782, p < .001). Also, the chi-square difference test for the mediators was significant between the hypothesised 2a model and the alternative 2b model (χ^2 [35] = 746.161, p < .001). Similar results were found for the outcomes where the chi-square difference test was significant between the proposed 3a model and the alternative 3b (χ^2 [39] = 719.163, p < .001), 3c (χ^2 [69] = 1618.144, p < .001), and 3d models (χ^2 [102] = 3945.416, p < .001). Lastly, the chi-square difference test for the moderators was significant between the hypothesised 4a model and the alternative 4b model (χ^2 [81] = 410.826, p < .001). Thus, the chi-square difference tests in Table 5.3 showed a significant decrease in model fit and an increase in the overall square values of the substitute models.

Table 5.3. Goodness of fit indices of models using maximum likelihood estimation

	x^2	*df*	CFI	TLI	RMSEA (90% CI)	SRMR	Δx^2 (*df*)	*p*
Predictors								
Model 1a: Three-factor with 14 items	3112.510	2100	0.925	0.914	0.049 (0.045,0.052)	0.052	-	
Model 1b: Two-factor with 14 items	3550.597	2160	0.898	0.885	0.056 (0.053,0.060)	0.056	438.087(60)	<.001
Model 1c: One-factor with 14 items	4987.292	2195	0.794	0.774	0.079 (0.076,0.082)	0.121	1874.782(95)	<.001
Mediators								
Model 2a: Two-factor with 7 items	542.641	445	0.985	0.980	0.033 (0.022,0.042)	0.036	-	
Model 2b: One-factor with 7 items	1286.802	480	0.874	0.843	0.091 (0.085,0.097)	0.118	746.161(35)	<.001
Outcomes								
Model 3a: Five-factor with 31 items	7308.728	3987	0.836	0.824	0.064 (0.062,0.066)	0.081	-	
Model 3b: Four-factor with 31 items	8027.891	4026	0.803	0.790	0.070 (0.068,0.072)	0.150	719.163(39)	<.001
Model 3c: Three-factor with 31 items	8926.872	4056	0.760	0.747	0.077 (0.075,0.079)	0.176	1618.144(69)	<.001
Model 3d: One-factor with 31 items	11254.144	4089	0.647	0.631	0.093 (0.091,0.095)	0.123	3945.416(102)	<.001
Moderators								
Model 4a: Five-factor with 23 items	6150.364	3722	0.783	0.761	0.057 (0.054,0.059)	0.082	-	
Model 4b: Three-factor with 23 items	6561.190	3803	0.753	0.734	0.060 (0.057,0.062)	0.088	410.826(81)	<.001

5.1.4. Measurement Invariance Testing

Measurement invariance (MI) examines the change in the goodness of fit index when across-group constraints are adapted to a measurement model (Cheung & Rensvold, 2002). It estimates measurement errors within factors, examines factorial validity, and assesses whether constructs are interpreted similarly across groups (Sass, 2011). In other words, MI is conducted to examine the same scale across time or groups when items combine to form a latent construct and when the measurement instruments have evidence of reliability and validity (Vandenberg & Lance, 2000). It is believed that parameter estimates cannot be compared across groups when measures are noninvariant (ibid.). Evaluation of MI begins with specifying a CFA that indicates how constructs are theoretically hypothesised (Van de Schoot, Lugtig, & Hox, 2012). Hence, why MI is considered a stringent extension of CFA. CFA typically tests for configural invariance (the basic factor structure) to assess whether there is a fit between the data and the hypothesised model. It seeks to establish a pattern invariance whereby the same items measure the same latent variables across time using the overall model fit (Vandenberg & Lance, 2000). Since configural invariance was established earlier (see section 5.1.3), the next level of MI, metric invariance, is estimated.

Metric invariance model allows intercept coefficients to vary between time points and fixes factor loadings to be equal across time points to test whether the understanding of the latent constructs stays the same across time. It is supposed that if a construct has the same meaning across time, then participants' responses to the items for each construct should be homogeneous (Vandenberg & Lance, 2000). Metric invariance is measured by comparing the fit of the metric model with the fit of the configural model using a chi-square difference test (ibid.). Factor loadings are invariant across time when there is a nonsignificant difference in model fit. The next level of measurement invariance that builds upon metric invariance is scalar or strong invariance. In this model, item intercepts are fixed to be equivalent across time points to test if participants' understanding of the response scale unit stays the same across time. An item Intercept is regarded as the starting value of a response or factor scale. Just as with metric invariance, scalar invariance is established by obtaining a nonsignificant difference in the comparison of the fit of the scalar with the metric model. The final level of invariance is called strict invariance. Contrary to the previously discussed level of MI, strict invariance comprises two sublevels: strict factor variance invariance and strict error variance invariance (Vandenberg & Lance, 2000). Strict invariance measures residual error's equivalence across time through a chi-square difference test with the preceding model. However, strict invariance is excluded because it is a highly constrained model that is hardly attained, equality in residual variance across time is unreasonable, and there is a high

potential of obtaining a significantly worse model fit (ibid.). More so, invariance within an LGM context is held to exist when configural and metric invariances are established (Bentein et al., 2005).

As shown in Table 5.4., assessing measurement invariance for each predictor construct within the non-variant model resulted in a nonsignificant difference in model fit between the baseline and metric models and between the metric and scalar models, as revealed in the chi-square difference test. For autonomy, the chi-square difference was nonsignificant between the configural and metric model (χ^2 [58] = 65.929, p = .93), and between the scalar and metric (χ^2 [66] = 75.294, p = .31). For support, the chi-square difference was nonsignificant between the configural and metric model (χ^2 [504] = 99.032, p = .47), and between the scalar and metric (χ^2 [528] = 815.860, p = .86). Likewise, for OCM, the chi-square difference was nonsignificant between the configural and metric model (χ^2 [132] = 74.561, p = .67), and between the scalar and metric (χ^2 [144] = 90.404, p = .20). Similar results were found for individual mediator variable where the chi-square difference test for career reflection was nonsignificant between the configural and metric model (χ^2 [132] = 92.755, p = .48), and between the scalar and metric (χ^2 [144] = 96.393, p = .99). Also, for career construction, the chi-square difference test for reflection was nonsignificant between the configural and metric model (χ^2 [58] = 75.802, p = .82), and between the scalar and metric (χ^2 [66] = 88.962, p = .11). Results revealed that the assumption of configural, metric and scalar invariance were met for both the predictors and mediators. Thus, these invariance constraints were included in subsequent LGM analyses. As this thesis focuses on estimating trajectories in career resources (predictors) and the mediating effect of the two dimensions of career crafting, the outcome and moderator constructs were excluded from the measurement variance test. Besides, it is argued that demonstrating metric and scalar invariance is irrelevant when comparing latent means as opposed to observed mean differences between groups (Schmitt & Kuljanin, 2008).

Table 5.4. Measurement invariance tests results of individuals constructs

	x^2	*df*	CFI	TLI	RMSEA	SRMR	Δx^2 (*df*)	*p*
Autonomy								
Configural Model	62.931	50	0.996	0.992	0.036	0.019		
Metric Model	65.929	58	0.998	0.996	0.026	0.026	2.998(8)	.93
Scalar Model	75.294	66	0.997	0.996	0.026	0.030	9.365(8)	.31
Support								
Configural model	75.143	480	0.953	0.942	0.055	0.041		
Metric Model	99.032	504	0.953	0.944	0.054	0.047	23.889(24)	.47

Scalar model	815.860	528	0.954	0.948	0.052	0.048	16.828(24)	.86
OCM								
Configural model	65.165	120	0.984	0.974	0.043	0.042		
Metric model	74.561	132	0.985	0.978	0.040	0.047	9.396(12)	.67
Scalar model	90.404	144	0.983	0.978	0.040	0.048	15.843(12)	.20
Reflection								
Configural model	181.11	120	0.985	0.976	0.050	0.026		
Metric model	92.755	132	0.985	0.978	0.048	0.034	11.645(12)	.48
Scalar model	96.393	144	0.987	0.973	0.042	0.034	3.638(12)	.99
Construction								
Configural model	71.387	50	0.990	0.974	0.046	0.033		
Metric model	75.802	58	0.992	0.978	0.039	0.035	4.415(8)	.82
Scalar model	88.962	66	0.989	0.978	0.041	0.035	13.160(8)	.11

5.1.5. Scale Reliability Re - Test and Correlations

The internal consistency of the reduced scales was re-examined. Cronbach's alpha for all reduced scales was above 0.70. This result in Table 5.5 provides additional evidence of the reliability of the selected measurement scales.

Table 5.5. Scale Reliability of reduced measures indicated by Cronbach's Alpha

		Reliability				
	Number of items	Time 2 *(n = 322)*	Time 3 *(n = 282)*	Time 4 *(n = 253)*	Time 5 *(n = 232)*	Time 6 *(n = 203)*
Predictors						
Support	7	.917	.911	.908	.914	.916
OCM	4	.855	.793	.831	.824	.846
Mediators						
Construction	3	.858	.840	.880	.878	.867
Moderators						
Inclusive Talent	3	.787	.793	.768	.746	.750
Org's inclusive T	3			.795	.842	.821

Examination of correlations of the constructs and control variables of this study is essential to substantiate the lack of multicollinearity. Table 5.6 shows the means, standard deviations, and correlations of the abridged variables in the study. The full correlation matrix is presented in Appendix 4. The table also indicates the control variables with significant correlation with other study variables.

Table 5.6. Means, standard deviation and inter-correlations of (abridged) study variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Age	35.62	9.48	1																													
2. Gender	1.51	0.54	-.218**	1																												
3. Tenure	5.19	5.52	.548**	-.117*	1																											
4. Organisation type	1.68	0.66	0.015	-0.079	-0.077	1																										
5. Organisation size	3.54	0.81	0.030	0.081	.116*	-.240**	1																									
6. Job autonomy (T2)	3.49	1.29	0.056	0.044	0.060	.149**	-0.080	1																								
7. Job autonomy (T3)	3.09	1.69	0.108*	0.051	.148**	.140**	-0.077	.634**	1																							
8. Job autonomy (T4)	2.75	1.86	0.077	0.011	0.097	.130*	-0.058	.511**	.782**	1																						
9. Job autonomy (T5)	2.53	1.94	0.084	-0.001	0.069	.113*	-0.078	.476**	.693**	.850**	1																					
10. Job autonomy (T6)	2.17	1.98	.133*	0.009	.112*	.147**	-0.028	.397**	.567**	.716**	.821**	1																				
11. Supervisor support (T2)	2.79	1.20	-0.025	0.015	0.020	.113*	-0.001	.680**	.437**	.364**	.301**	.207**	1																			
12. Supervisor support (T3)	2.48	1.46	0.023	0.042	0.092	0.084	-0.033	.507**	.828**	.672**	.603**	.500**	.601**	1																		
13. Supervisor support (T4)	2.20	1.57	0.013	0.018	0.036	0.080	-0.040	.412**	.672**	.858**	.745**	.630**	.490**	.769**	1																	
14. Supervisor support (T5)	1.98	1.60	0.038	-0.032	0.049	0.071	-0.059	.378**	.574**	.732**	.863**	.721**	.416**	.669**	.817**	1																
15. Supervisor support (T6)	1.71	1.63	0.097	0.012	0.075	.136*	-0.002	.331**	.503**	.654**	.747**	.896**	.319**	.575**	.697**	.789**	1															
16. OCM (T2)	2.65	1.21	-0.052	0.021	0.022	0.034	0.030	.600**	.380**	.307**	.258**	.186**	.845**	.538**	.421**	.373**	.283**	1														
17. OCM (T3)	2.40	1.43	-0.007	0.081	0.084	0.042	-0.021	.485**	.802**	.666**	.587**	.470**	.558**	.923**	.737**	.626**	.518**	.579**	1													
18. OCM (T4)	2.10	1.53	-0.049	0.048	0.047	0.043	-0.022	.364**	.633**	.812**	.702**	.569**	.470**	.730**	.921**	.777**	.622**	.463**	.757**	1												
19. OCM (T5)	1.91	1.57	0.001	0.015	-0.002	0.085	-0.080	.362**	.572**	.726**	.857**	.688**	.381**	.643**	.776**	.922**	.736**	.384**	.652**	.792**	1											
20. OCM (T6)	1.61	1.55	0.080	0.012	0.060	.124*	-0.010	.315**	.503**	.646**	.744**	.879**	.299**	.563**	.676**	.769**	.944**	.304**	.546**	.648**	.762**	1										
21. Career reflection (T2)	2.88	1.19	-.161**	0.010	-.166**	.117*	-0.037	.644**	.433**	.385**	.306**	.199**	.623**	.483**	.409**	.318**	.232**	.619**	.475**	.422**	.339**	.255**	1									
22. Career reflection (T3)	2.57	1.51	-0.034	0.033	-0.001	0.072	-0.038	.442**	.766**	.644**	.560**	.441**	.437**	.802**	.658**	.570**	.446**	.429**	.799**	.677**	.590**	.468**	.639**	1								
23. Career reflection (T4)	2.28	1.63	-0.002	0.012	-0.013	0.073	-0.012	.355**	.637**	.821**	.692**	.587**	.354**	.647**	.834**	.692**	.576**	.345**	.652**	.828**	.702**	.589**	.524**	.768**	1							
24. Career reflection (T5)	2.04	1.64	-0.025	0.008	-0.039	0.075	-0.073	.346**	.567**	.725**	.850**	.698**	.289**	.577**	.703**	.838**	.694**	.281**	.565**	.705**	.859**	.707**	.435**	.673**	.786**	1						
25. Career reflection (T6)	1.77	1.67	0.023	0.020	-0.009	.127*	-0.015	.284**	.473**	.620**	.720**	.857**	.225**	.499**	.605**	.709**	.859**	.238**	.493**	.594**	.714**	.886**	.329**	.540**	.664**	.794**	1					
26. Career construction (T2)	2.64	1.15	-.124*	0.004	-0.030	0.083	-0.019	.600**	.428**	.363**	.296**	.222**	.658**	.503**	.404**	.314**	.270**	.655**	.489**	.406**	.330**	.277**	.750**	.533**	.421**	.374**	.299**	1				
27. Career construction (T3)	2.36	1.41	-0.028	0.053	0.052	0.068	-0.043	.430**	.761**	.612**	.529**	.393**	.464**	.819**	.646**	.528**	.409**	.477**	.813**	.645**	.547**	.422**	.543**	.857**	.680**	.598**	.467**	.623**	1			
28. Career construction (T4)	2.08	1.53	-0.035	0.057	0.024	0.067	-0.063	.348**	.613**	.794**	.667**	.561**	.351**	.645**	.834**	.662**	.577**	.349**	.642**	.822**	.677**	.577**	.447**	.678**	.864**	.726**	.618**	.518**	.737**	1		
29. Career construction (T5)	1.92	1.57	0.010	0.011	0.011	0.070	-0.061	.344**	.549**	.705**	.834**	.682**	.314**	.585**	.717**	.849**	.695**	.306**	.568**	.697**	.852**	.705**	.370**	.604**	.725**	.904**	.750**	.429**	.636**	.774**	1	
30. Career construction (T6)	1.65	1.56	0.080	0.023	0.078	.118*	-0.024	.298**	.479**	.624**	.725**	.860**	.225**	.498**	.624**	.705**	.879**	.227**	.470**	.585**	.687**	.886**	.275**	.483**	.611**	.741**	.906**	.338**	.489**	.657**	.782**	1

*p<0.05. **p<0.01

5.2. Longitudinal Analysis

This section reports the outcomes of the model testing. It begins with presenting the results of the preliminary analyses of the hypothesised relationships, where the lagged effect using regression analysis of the predictors on the outcomes through the mediator and the moderated mediation are tested. This subsection is followed by the results of the main model testing, beginning with the basic LGM model, the parameter estimates of the selected model and the growth trajectories across time.

5.2.1. Stage One Analysis – Cross-Lagged Model

The autoregressive model is one of the most popular techniques in social sciences for assessing longitudinal relations between variables (McArdle, 2009). A vital characteristic of this model is the regression of a variable on its prior value (Bollen & Curran, 2004). It is also used to determine the effect of one variable at one time on another at a later time by staggering examination of the predictors and outcomes (Cole & Maxwell, 2003). The autoregressive model is seen as a crucial initial summary of longitudinal data (Rogosa, Brandt, & Zimowski, 1982) to test simple or logical relationships between the variables of interest. Thus, this study begins with examining the time-specific lagged effect between career resources, career crafting and career outcomes. The indirect impact of career resources at time point two on the outcomes at time point six through the mediating role of career reflection and career construction at time point four were assessed using PROCESS model 4 (Hayes, 2013). Also, the cross-lagged effect of the moderator of career self-efficacy at timepoint two and fit in talent philosophy at timepoint four on the indirect impact of career resources on career outcomes through career crafting using PROCESS model 7 (Hayes, 2013) was tested. While it is established that there is not one accurate lag to study an effect, a lagged model requires a minimum of three measurement occasions (Selig, Preacher, & Little, 2012; Preacher, 2015). Therefore, the selection of the utilised lags is based on the processes under study, with time two as the starting point for the predictors, time six as the endpoint for the outcomes to unfold and time four as the midpoint for the mediators. Besides, research indicates that the relationship between a cause (career resources) and an effect (career outcomes) unfolds continuously over time; as such, there is no distinct point at which effects occur (Dormann & Griffin, 2015). This section of the analysis was done using SPSS version 27.

5.2.1.1. Mediation Analysis

Career Satisfaction – The study preliminarily assessed the mediating role of career reflection and career construction on the relationship between each career resource and career-related outcomes. The results presented in Table 5.7 showed a significant indirect impact of autonomy on satisfaction through career reflection (β=0.1637, t=3.042) and career construction (β=0.0170, t=2.237). Furthermore, the indirect effect of supervisor support on satisfaction through reflection (β=0.1833, t=3.127) and construction (β=0.1302, t=2.320) was significant. Likewise, the results revealed a significant effect of OCM on satisfaction through career reflection (β=0.1792, t=3.058) and career construction (β=0.1289, t=2.281). However, the direct impact of each career resource on career satisfaction in the presence of the mediators was only found to be significant for job autonomy (β= 0.1657, p < 0.01).

Table 5.7. Summary of mediation analysis for career satisfaction

Direct Effect	*Relationship*	*Indirect Effect*	*Confidence Interval*		*t - statistics*
			Lower Bound	*Upper Bound*	
(Autonomy → Satisfaction) **0.1657 (.008)**	Autonomy → Reflection → Satisfaction	0.1637	0.0635	0.2722	3.042
	Autonomy → Construction → Satisfaction	0.1150	0.0170	0.2912	2.237
(Support → Satisfaction) **0.0656 (.330)**	Support → Reflection → Satisfaction	0.1833	0.0751	0.3071	3.127
	Support → Construction → Satisfaction	0.1302	0.0214	0.2409	2.320
(OCM → Satisfaction) **0.0577 (.389)**	OCM → Reflection → Satisfaction	0.1792	0.0733	0.3057	3.058
	OCM → Construction → Satisfaction	0.1289	0.0205	0.2442	2.281

Career Commitment – The result of the linear longitudinal analysis revealed a significant indirect effect of autonomy on commitment through career reflection (β=0.1181, t=2.528) and career construction (β=0.1445, t=3.067). Likewise, supervisor support was found to have a significant indirect effect on career commitment through reflection (β=0.1347, t=2.551) and construction (β=0.1622, t=3.060). Also, the results showed a significant indirect effect of OCM on commitment through career reflection (β=0.1316, t=2.367) and career construction (β=0.1603, t=3.143). The direct effect of each career resource on career commitment in the presence of the mediators was shown only to be significant for autonomy (β= 0.1545, p = 0.01). The results are presented in Table 5.8.

Table 5.8. Summary of mediation analysis for career commitment

Direct Effect	*Relationship*	*Indirect Effect*	*Confidence Interval*		*t - statistics*
			Lower Bound	*Upper Bound*	
(Autonomy → Commitment) **0.1545 (.010)**	Autonomy → Reflection → Commitment	0.1181	0.0272	0.2075	2.528
	Autonomy → Construction → Commitment	0.1445	0.0542	0.2416	3.067
(Support → Commitment) **0.0518 (.422)**	Support → Reflection → Commitment	0.1347	0.0363	0.2455	2.551
	Support → Construction → Commitment	0.1622	0.0591	0.2703	3.060
(OCM → Commitment) **0.0494 (.442)**	OCM → Reflection → Commitment	0.1316	0.0395	0.2355	2.637
	OCM → Construction → Commitment	0.1603	0.0626	0.2617	3.143

Internal Employability – The results presented in Table 5.9 showed a significant indirect effect of autonomy on internal employability through the mediator of career reflection alone (β=0.2091, t=3.456). A similar result was found in the relationship between supervisor support and employability (β=0.2324, t=3.505) and OCM and employability (β=0.2287, t=3.523), where only career reflection has a significant indirect effect. However, the direct impact of each career resource on internal employability in the presence of the mediators was only found to be significant for job autonomy (β= 0.1466, $p < 0.05$).

Table 5.9. Summary of mediation analysis for internal employability

Direct Effect	*Relationship*	*Indirect Effect*	*Confidence Interval*		*t - statistics*
			Lower Bound	*Upper Bound*	
(Autonomy → Employability) **0.1466 (.027)**	Autonomy → Reflection → Employability	0.2091	0.0950	0.3340	3.456
	Autonomy → Construction → Employability	0.0828	-0.0240	0.1940	1.510
(Support → Employability) **0.0336 (.637)**	Support → Reflection → Employability	0.2324	0.1029	0.3649	3.505
	Support → Construction → Employability	0.0962	-0.0207	0.2219	1.579
(OCM → Employability)					

-0.0083 (.906)	OCM → Reflection → Employability	0.2287	0.1089	0.3617	3.523
	OCM → Construction → Employability	0.0979	-0.0167	0.2221	1.618

Turnover Intentions – The findings from the cross-lagged analysis showed a significant indirect effect of autonomy on turnover intentions only through career reflection (β=0.2387, t=4.108). The indirect impact of supervisor support on turnover intentions was significant through career reflection (β=0.2674, t=4.353) alone and for the relationship between OCM and turnover intentions (β=0.2595, t=4.317). The direct effect of each career resource on turnover intentions in the presence of the mediators was found to be significant for supervisor support (β= -0.2194, p < 0.001) and OCM (β= -0.2446, p < 0.001). The results are presented in Table 5.10.

Table 5.10. Summary of mediation analysis for turnover intentions

Direct Effect	*Relationship*	*Indirect Effect*	*Confidence Interval*		*t - statistics*
			Lower Bound	*Upper Bound*	
(Autonomy → Turnover)					
-0.0302 (.619)	Autonomy → Reflection → Turnover	0.2387	0.1302	0.3568	4.108
	Autonomy → Construction → Turnover	0.0090	-0.0902	0.1104	0.179
(Support → Turnover)					
-0.2194 (.000)	Support → Reflection → Turnover	0.2674	0.1521	0.3873	4.353
	Support → Construction → Turnover	0.0217	-0.0768	0.1291	0.417
(OCM → Turnover)					
-0.2446 (.000)	OCM → Reflection → Turnover	0.2595	0.1503	0.3851	4.317
	OCM → Construction → Turnover	0.0248	-0.0762	0.1242	0.486

Psychological Contract Fulfilment – The study preliminarily assessed the mediating role of career reflection and career construction on the relationship between each career resource and psychological contract fulfilment. The results presented in Table 5.11 showed a significant indirect impact of autonomy on psychological contract through career reflection (β=0.1522, t=3.231) and career construction (β=0.1097 t=2.454). Furthermore, the indirect effect of supervisor support on psychological contract fulfilment through reflection (β=0.1719, t=3.261) and construction (β=0.1253, t=2.506) was found to be significant. Likewise, the results revealed a significant effect of OCM on psychological contract fulfilment through career reflection (β=0.1689, t=3.337) and career construction (β=0.1253, t=2.516). However, the

direct impact of each career resource on psychological contract fulfilment in the presence of the mediators was only found to be significant for job autonomy (β= 0.1614, p < 0.01).

Table 5.11. Summary of mediation analysis for psychological contract fulfilment

Direct Effect	*Relationship*	*Indirect Effect*	*Confidence Interval*		*t - statistics*
			Lower Bound	*Upper Bound*	
(Autonomy → Psy. Contract) **0.1614 (.004)**	Autonomy → Reflection → Psy. Contract	0.1522	0.0625	0.2469	3.231
	Autonomy → Construction → Psy. Contract	0.1097	0.0247	0.2012	2.454
(Support → Psy. Contract) **0.0477 (.439)**	Support → Reflection → Psy. Contract	0.1719	0.0719	0.2772	3.261
	Support → Construction → Psy. Contract	0.1253	0.0321	0.2298	2.506
(OCM → Psy. Contract) **0.0242 (.692)**	OCM → Reflection → Psy. Contract	0.1689	0.0772	0.2745	3.337
	OCM → Construction → Psy. Contract	0.1253	0.0312	0.2246	2.516

In summary, support was found for the significant cross-lagged effect of job autonomy, supervisor support and organisation career management on each career outcome through proactive career reflection. However, significant cross-lagged effects could only be found for job autonomy, supervisor support and organisation career management on career satisfaction, career commitment and psychological contract fulfilment through proactive career construction. In other words, employees with high job autonomy, access to supervisor support for career development and organisation career management engage in reflecting on their career interest and motivation, networking and skills profiling to achieve their desired career outcomes. Together, the above results show support for the relevance of the dimensions of career crafting – proactive career reflection and career construction – as important mediators in the linear longitudinal relationship between career resources and career outcomes.

5.2.1.2. Moderated Mediation Analysis

The results of the moderated mediation analysis summary are shown below. Of the two hypothesised constructs, talent philosophy, specifically stable beliefs of talent, moderated the indirect effect of career resources on career outcomes through career crafting. Thus, the results presented in Tables 5.12 to 5.16 are for the career outcomes where some effects were

found for stable beliefs of talent. The results of the moderated-mediation analysis for career self-efficay and inclusive beliefs of talent are presented in Appendix 5 and 6 respectively.

Career Satisfaction. Based on the index of moderated mediation (0.1349, 95% CI = [0.0166/0.3067]), the indirect effect of autonomy on career satisfaction through career reflection was significant since the 95% CI did not include zero. A similar result was found in the indirect impact of support on satisfaction through reflection (0.1438, 95% CI = [0.0455/0.2937]) and OCM on career satisfaction through career reflection (0.0825, 95% CI = [0.0037/0.1954]). However, moderated mediation was only established for the indirect effect of supervisor support on career satisfaction through career construction (0.0907, 95% CI = [0.0084/0.2180]). The results are presented in Table 5.12.

Table 5.12. Summary of conditional indirect effect on career satisfaction

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Stable Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Satisfaction	**0.1349**	**0.0166/0.3067**	0.0808	0.2444
Autonomy → Construction → Satisfaction	0.0883	-0.0021/0.2113	0.0607	0.1678
Support → Reflection → Satisfaction	**0.1438**	**0.0455/0.2937**	0.0880	0.2625
Support → Construction → Satisfaction	**0.0907**	**0.0084/0.2180**	0.0701	0.1801
OCM → Reflection → Satisfaction	**0.0825**	**0.0037/0.1954**	0.1233	.02234
OCM → Construction → Satisfaction	0.0692	-0.0028/0.1691	0.0819	0.1658

N = 322; Regression coefficients are unstandardised; Bootstrap sample size = 5,000

Career Commitment. The findings presented in Table 5.13 showed that the indirect impact of autonomy on career commitment through career reflection (0.0974, 95% CI = [0.0071/0.2353]) and career construction (0.1109, 95% CI = [0.0026/0.2422]) was significant as the 95% CI did not contain zero. Likewise, the indirect effect of support on commitment was significant through reflection (0.1057, 95% CI = [0.0242/0.2258]) and construction (0.1130, 95% CI = [0.0210/0.2472]), just as the relationship between OCM and career commitment through career reflection (0.0606, 95% CI = [0.0035/0.1464]) and career construction (0.0860, 95% CI = [0.0051/0.1979]).

Table 5.13. Summary of conditional indirect effect on career commitment

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Stable Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Commitment	**0.0974**	**0.0071/0.2353**	0.0583	0.1763
Autonomy → Construction → Commitment	**0.1109**	**0.0026/0.2422**	0.0763	0.2108
Support → Reflection → Commitment	**0.1057**	**0.0242/0.2258**	0.0647	0.1929
Support → Construction → Commitment	**0.1130**	**0.0210/0.2472**	0.0873	0.2243
OCM → Reflection → Commitment	**0.0606**	**0.0035/0.1464**	0.0905	0.1640
OCM → Construction → Commitment	**0.0860**	**0.0051/0.1979**	0.1019	0.2061

N = 322; Regression coefficients are unstandardised; Bootstrap sample size = 5,000

Internal Employability. Using the index of moderated mediation and the 95% CI which did not include zero, moderated mediation was established between the indirect effect of autonomy (0.1724, 95% CI = [0.0227/0.3703]), supervisor support (0.1824, 95% CI = [0.0662/0.3609]) and OCM (0.1053, 95% CI = [0.0069/0.2373]) on internal employability through career reflection alone, and not career construction. The results are presented in Table 5.14.

Table 5.14. Summary of conditional indirect effect on internal employability

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Stable Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Employability	**0.1724**	**0.0227/0.3703**	0.1032	0.3122
Autonomy → Construction → Employability	0.0635	-0.0227/0.1861	0.0437	0.1208
Support → Reflection → Employability	**0.1824**	**0.0662/0.3609**	0.1116	0.3328
Support → Construction → Employability	0.0670	-0.0146/0.1849	0.0518	0.1331
OCM → Reflection → Employability	**0.1053**	**0.0069/0.2373**	0.1573	0.2851
OCM → Construction → Employability	0.0525	-0.0118/0.1532	0.0622	0.1259

N = 322; Regression coefficients are unstandardised; Bootstrap sample size = 5,000

Turnover Intentions. The results reported in Table 5.15 revealed that the indirect impact of autonomy on turnover intentions through career reflection (0.1967, 95% CI =

[0.0282/0.3998])) was significant since the 95% CI did not contain zero. A similar result was found and reported in the indirect impact of support on turnover intentions through reflection (0.2098, 95% CI = [0.0873/0.3754]) and OCM on turnover intentions through career reflection (0.1195, 95% CI = [0.0042/0.2469]).

Table 5.15. Summary of conditional indirect effect on turnover intentions

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Stable Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Turnover	**0.1967**	**0.0282/0.3998**	0.1178	0.3563
Autonomy → Construction → Turnover	0.0069	-0.0726/0.0986	0.0047	0.0131
Support → Reflection → Turnover	**0.2098**	**0.0873/0.3754**	0.1284	0.3829
Support → Construction → Turnover	0.0151	-0.0600/0.1011	0.0117	0.0300
OCM → Reflection → Turnover	**0.1195**	**0.0042/0.2469**	0.1785	0.3235
OCM → Construction → Turnover	0.0133	-0.0474/0.0849	0.0158	0.0320

N = 322; Regression coefficients are unstandardised; Bootstrap sample size = 5,000

Psychological Contract Fulfilment. From the index of moderated mediation and the 95% CI, the indirect impact of autonomy on psychological contract fulfilment through career reflection (0.1254, 95% CI = [0.0164/0.2766]) and career construction (0.0842, 95% CI = [0.0002/0.2013]) was significant. Likewise, the indirect effect of support on commitment was significant through reflection (0.1349, 95% CI = [0.0466/0.2682]) and construction (0.0873, 95% CI = [0.0104/0.2030]), and the indirect effect of support on commitment was significant through reflection (0.0778, 95% CI = [0.0036/0.1792]) and construction (0.0672, 95% CI = [0.0022/0.1655]). The results are presented in Table 5.16.

Table 5.16. Summary of conditional indirect effect on psychological contract fulfilment

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Stable Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Psy. Contract	**0.1254**	**0.0164/0.2766**	0.0751	0.2272
Autonomy → Construction → Psy. Contract	**0.0842**	**0.0002/0.2013**	0.0579	0.1600

Support → Reflection → Psy. Contract	**0.1349**	**0.0466/0.2682**	0.0826	0.2461
Support → Construction → Psy. Contract	**0.0873**	**0.0104/0.2030**	0.0674	0.1733
OCM → Reflection → Psy. Contract	**0.0778**	**0.0036/0.1792**	0.1162	0.2105
OCM → Construction → Psy. Contract	**0.0672**	**0.0022/0.1655**	0.0796	0.1612

N = 322; Regression coefficients are unstandardised; Bootstrap sample size = 5,000

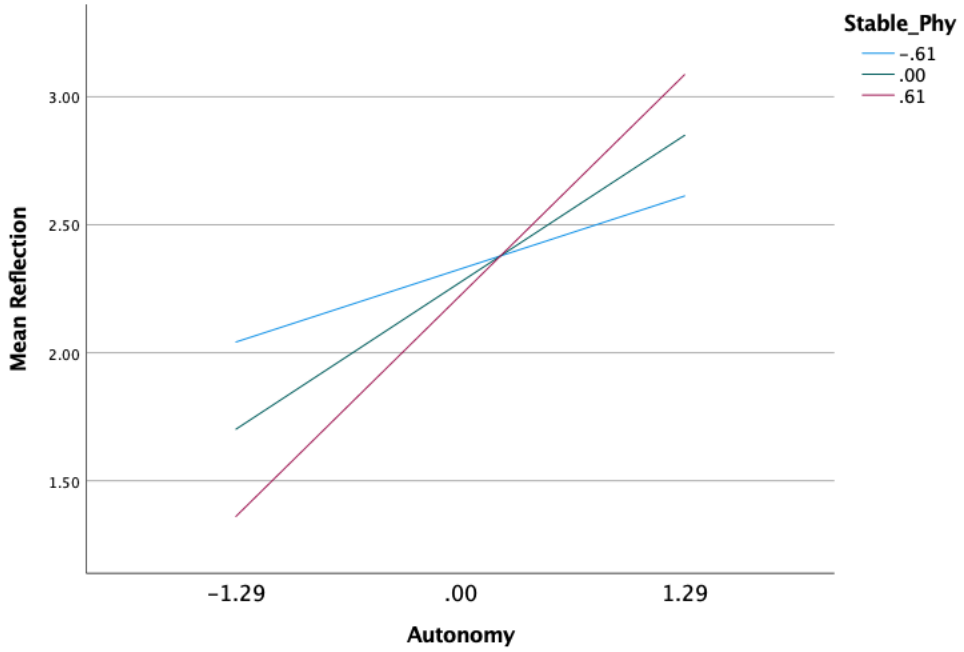

Figure 5.1: Moderated mediation effect for fit in stable talent philosophy x autonomy → career reflection

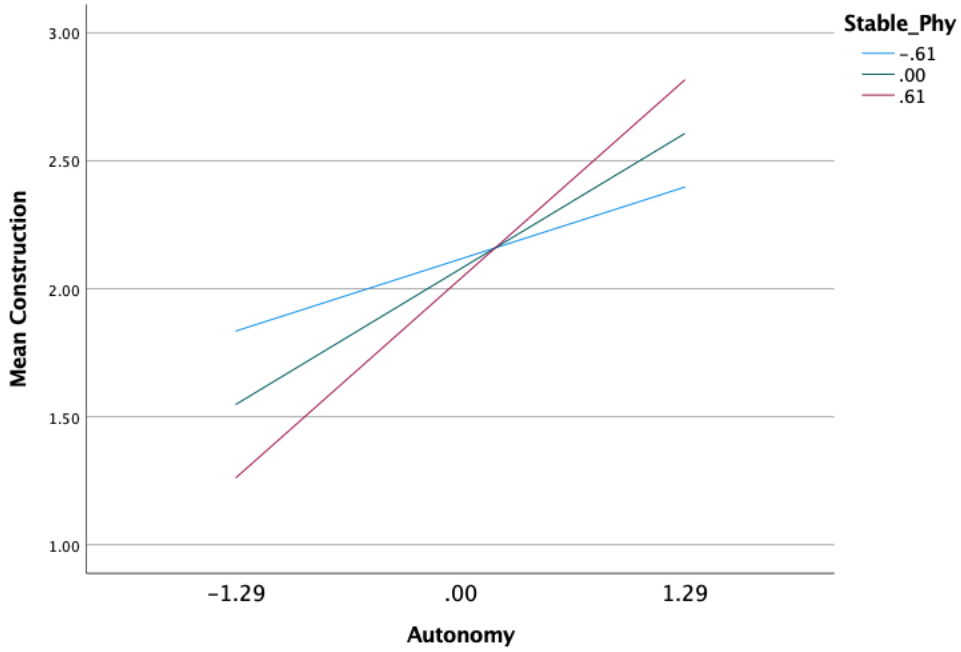

Figure 5.2: Moderated mediation effect for fit in stable talent philosophy x autonomy → career construction

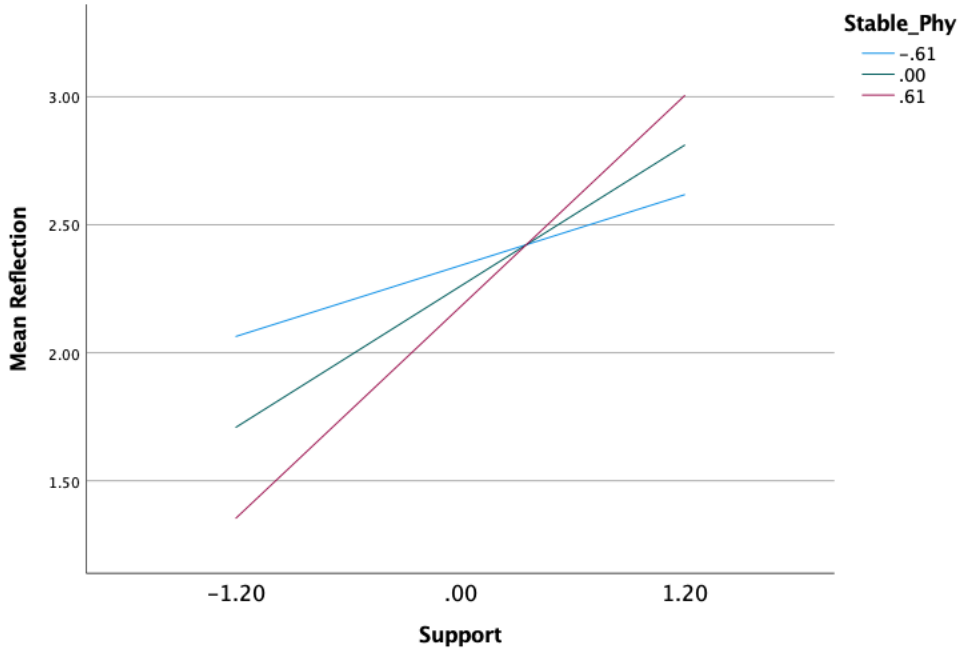

Figure 5.3: Moderated mediation effect for fit in stable talent philosophy x support → career reflection

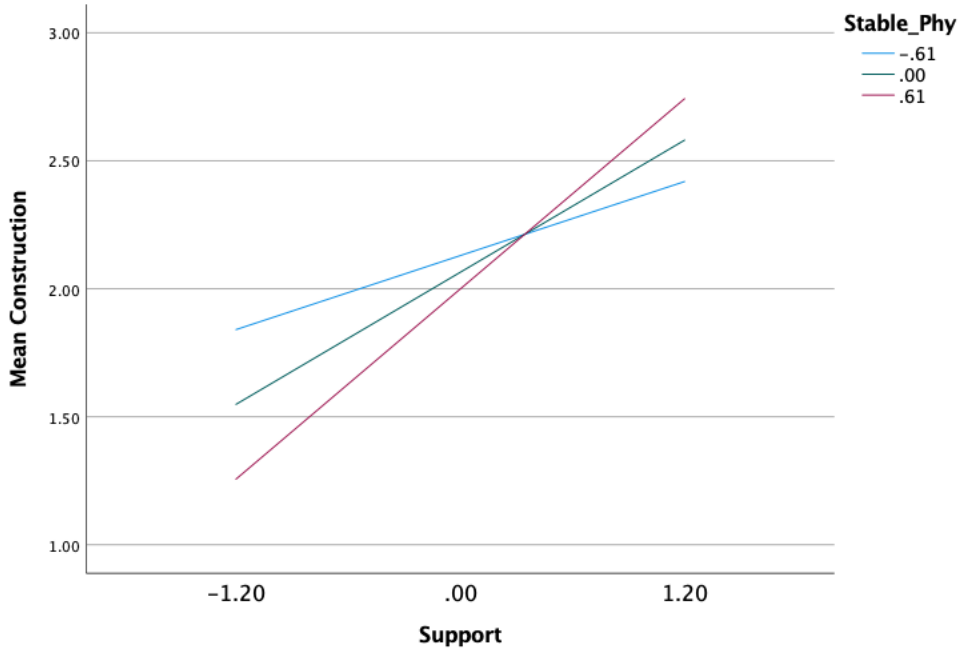

Figure 5.4: Moderated mediation effect for stable talent philosophy x support → career construction

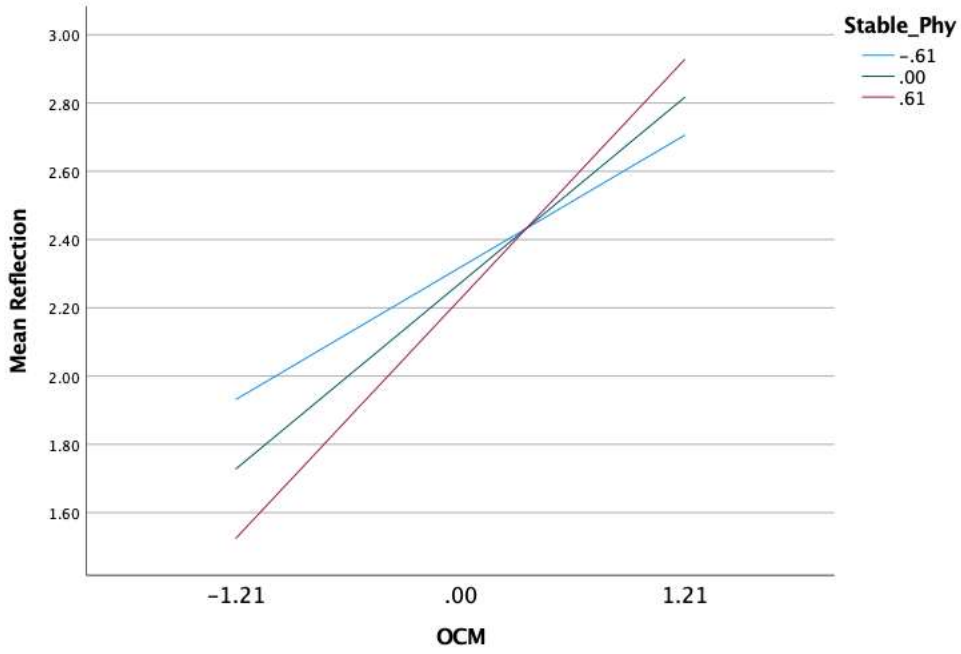

Figure 5.5: Moderated mediation effect for fit in stable talent philosophy x OCM → career reflection

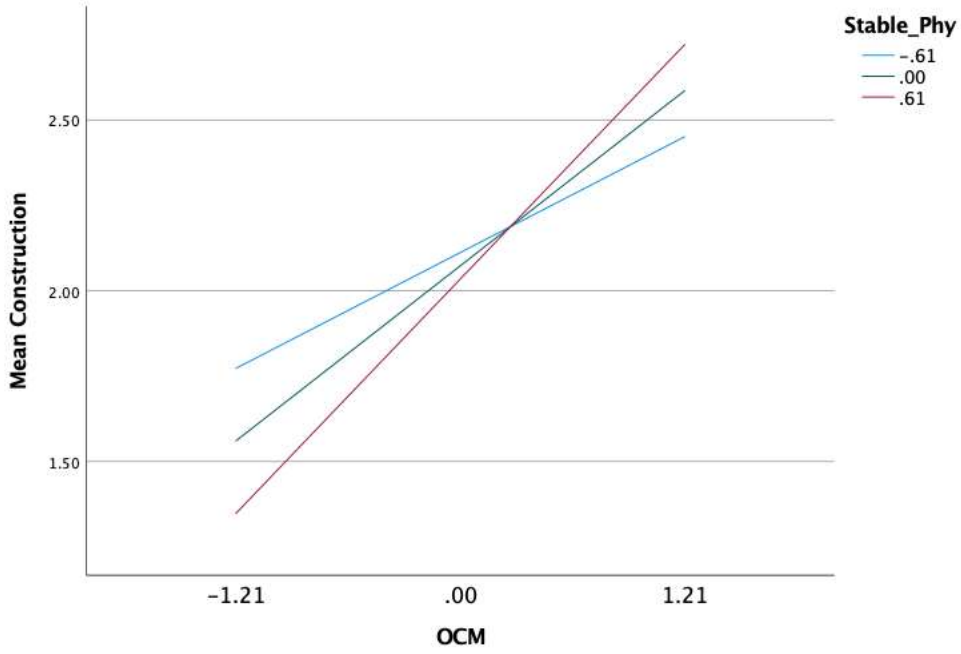

Figure 5.6: Moderated mediation effect for stable talent philosophy x OCM → career construction

In summary, the index of the moderated mediation in Tables 5.12 to 5.16 and the interaction plots in Figures 5.1 to 5.6 show that the impact of each career resource on career reflection and career construction was weaker at low and average levels of fit in talent philosophy. However, the interaction plots show a steeper gradient for high fit in talent philosophy, thus indicating that the indirect impact of each career resource on the career outcomes through career crafting was significant when the perception of having a similar talent philosophy as one's organisation was high. In other words, employees with high job autonomy, access to supervisor support for career development and organisation career management felt confident to engage in proactive career reflection and career constructions to achieve their desired career outcomes only when they have stable beliefs of talent as the organisation. Ultimately, the fit between individuals and the organisation's talent philosophy strengthens the effect of career resources on career crafting. Further analyses of the moderators on the relationship between career resources and career outcomes through career crafting are discussed and reported in the second stage of analysis.

5.2.2. Stage Two Analysis / Model Testing – Latent Growth Curve Model

Latent growth curve model (LGM) allows facets of longitudinal change, that is, individuals' intercepts and slopes, to undertake the role of predictor, mediator, and outcome in a model (Preacher, 2015). It is also useful in studying predictors of individual differences and identifying which constructs exerts the most effect on the rate of development (Duncan &

Duncan, 2004). Whereas time in a regression model, as earlier reported, determines the lags separating repeated measures, in LGM model, it influences the structural paths. A basic requirement of LGM is to collect repeated observations of the same variables on the same subject and in the same units of measurement (McArdle & Epstein, 1987). In a simple growth model LGM, two factors are identified to represent aspects of change: the intercept factor, the level at which the time variable equals zero and the slope factor, which is the rate at which the measured variables changes (Preacher et al., 2008). The mediating process includes the associations between the trajectory of the independent variable, the mediating variable, and the outcome variable (Cheong, MacKinnon, & Khoo, 2001).

To begin the main analyses, univariate LGM analyses for the predictor variables - job autonomy, supervisor support, and organisation career management were operated across the five-time points to determine the nature of the mean-level change, variations across the mean level and the association between the latent level and change factors. Linear and non-linear models were estimated for each variable, and the model fits are shown in Tables 5.17 and 5.18, respectively. Both the mean and variance indicate individual differences (Duncan & Duncan, 2009). Although the linear and quadratic models equally had good model fits, there was less significant variability in the quadratic factor. Also, the multivariate analysis conducted and presented in Table 5.19 to test the growth patterns of the predictors revealed significance in the chi-square difference test between the no growth and linear model (χ^2 [93] = 318.12, p < .001) and between the linear and quadratic model (χ^2 [66] = 206.43, p < .001). However, the linear growth model provided a better fit across the fit indexes (CFI = 0.926, RMSEA = 0.046) and is, thus, a better description of the data than the non-linear growth model. Because the results of the initial LGM analyses showed the linear model to have a superior fit, subsequent analyses were estimated with only the intercept and the single linear growth factor. The slope variance of the linear growth trajectory is significant in most cases, suggesting that different employees have different growth parameters. The covariates between the intercept and slope of each construct were all nonsignificant. This result indicates that the initial level at time 2 and the rate of change over times 3 to 6 were unrelated; employees with low and high starting levels were likely to experience change in their job autonomy, supervisor support and organisation career management.

Table 5.17. Parameter estimates of the basic linear growth curve model

	(Initial level) Intercept		***Covar.***	***Linear Slope***		***Fit Indices***		
Variable	*Mean*	*Var.*		*Mean*	*Var.*	*X^2, df*	*CFI*	*RMSEA*
Autonomy	3.813***	0.474***	0.006	-0.010	0.006*	11.221, 10	0.999	0.019

Support	3.068***	0.565***	-0.006	-0.022	0.010*	16.396, 10	0.992	0.045
OCM	2.937***	0.569***	-0.020	-0.021	0.015**	15.053, 10	0.992	0.040

CFI = comparative fit index; RMSEA = root meant square error of approximation
*p<0.05. **p<0.01, ***p<0.001

Table 5.18. Parameter estimates of the basic quadratic growth curve model

	(Initial level) Intercept		***Linear***		***Quadratic***		***Fit Indices***		
Variable	*Mean*	*Var.*	*Mean*	*Var.*	*Mean*	*Var.*	*X^2, df*	*CFI*	*RMSEA*
Aut.	3.796***	0.482***	0.034	0.072	-0.012	0.005*	2.101, 6	1.000	0.000
Support	3.043***	0.591***	0.027	0.090	-0.012	0.003	10.223, 6	0.995	0.047
OCM	2.894***	0.598***	0.066	0.085	-0.022*	0.004	7.999, 6	0.997	0.032

CFI = comparative fit index; RMSEA = root meant square error of approximation
*p<0.05. **p<0.01, ***p<0.001

Table 5.19. Comparison of fitted multivariate growth curve model of predictors

Model label	x^2	*df*	CFI	RMSEA	Δx^2 (*df*)	*p*
No growth	460.883	111	0.885	0.066		
Linear growth	318.119	93	0.926	0.046	142.764(18)	<.001
Quadratic growth	206.425	66	0.954	0.081	111.694(27)	<.001

x^2 = chi-square; Δx^2 (*df*) = difference in chi-square and degrees of freedom; CFI = comparative fit index; RMSEA = root meant square error of approximation; *p<0.05. **p<0.01, ***p<0.001

5.2.2.1. Mediation Analysis

The effect of career resources on career crafting. The hypothesised model specified an indirect effect of career resources and career outcomes through proactive career reflection and career construction. For the first pathway in the mediation model, hypotheses 1a to 1c suggest that employees who experience trajectories in each career resource over time will show high levels of career crafting. Specifically, the initial level and linear slope of job autonomy, supervisor support and organisational career management will have positive and significant impacts on proactive career reflection and career construction. The results presented in Table 5.20 revealed that the initial level of job autonomy was not a significant predictor of career reflection (β=0.131, ns) and career construction (β=0.122, ns), neither was the time parameter on both career reflection (β=0.085, ns) and career construction (β=-0.559, ns). Thus, hypothesis 1a was not supported. For supervisor support, it was expected that employees who experience an initial level of support for career development from their supervisors and continuous support over time would most likely construct and reflect on their careers. The results showed that the initial level of supervisor support was a significant predictor of career reflection (β=0.314, p<.001) and career construction (β=0.432, p<.001), but not the time parameter (β=0.234, ns; β=0.441, ns) on career reflection and career

construction respectively. Thus, levels of supervisor support explain career crafting but not change in supervisor support, which means that hypothesis 1b was not supported. Likewise, for organisation career management, it was anticipated that employees with initial access to organisation career management practices and continuous access to OCM practices over time would engage in career crafting activities. However, the results revealed that the initial level of OCM was a significant predictor of the career reflection (β=0.393, p<.001) and career construction (β=0.466, p<.001), but not the time parameter (β=0.748, ns; β=-0.021, ns) on career reflection and career construction respectively. Levels of OCM as supervisor support explain career crafting but not change in OCM. Hence, hypothesis 1c was not supported.

Table 5.20. Latent growth curve models as predictors of career crafting

		Reflection		**Construction**		
Hyp.	*Growth Model*	*β (SE)*	*t-value*	*β (SE)*	*t-value*	*Outcome*
1a	***Autonomy***					not supported
	Level	0.131 (0.091)	1.439	0.122 (0.096)	1.274	
	Linear slope	0.085 (0.631)	0.135	-0.559 (0.811)	-0.690	
1b	***Support***					not supported
	Level	**0.314 (0.084)*** **	3.751	**0.432 (0.082)*** **	5.247	
	Linear slope	0.234 (0.393)	0.594	0.441 (0.366)	1.206	
1c	***OCM***					not supported
	Level	**0.393 (0.083)*** **	4.749	**0.466 (0.086)*** **	5.437	
	Linear slope	0.748 (0.788)	0.949	-0.021 (0.800)	-0.026	

β = parameter estimate; SE = standard error; *p<0.05. **p<0.01, ***p<0.001

The effect of career crafting on career outcomes. For the second pathway in the mediation model, hypotheses 2a to 2e predicted that proactive career reflection and career construction would each be positively and significantly associated with career satisfaction, career commitment, internal employability, turnover intentions, and psychological contract fulfilment. The results shown in Table 5.21 revealed that of the two dimensions of career crafting, career construction alone had a positive and significant effect on career satisfaction (β=0.272, p<.001). In contrast, career reflection was not a significant predictor (β=0.021, ns). Likewise, career construction alone has a positive and significant effect on career commitment (β=0.259, p<.01), while the impact of career reflection on commitment was not significant (β=0.041, ns). Thus, hypotheses 2aii and 2bii were supported for career satisfaction and career commitment. On the contrary, career reflection and career construction had no significant effect on internal employability (β=0.104, ns; β=0.022, ns); hence hypothesis 2c was not supported. Although career reflection and career construction had significant effects

on turnover intentions, only career construction had a negative and significant impact on turnover intentions (β= -0.242, p<.05), supporting hypothesis 2dii. Lastly, both career reflection and career construction had no significant effect on psychological contract fulfilment (β=0.027, ns; β=0.122, ns); thus, hypothesis 2e was not supported.

Table 5.21. Dimensions of career crafting as predictors of career outcomes

Hypothesis		*β (SE)*	*t-value*	*Outcome*
2ai	reflection → satisfaction	0.021 (0.087)	0.242	not supported
2aii	construction → satisfaction	**0.272 (0.084)*** **	3.227	supported
2bi	reflection → commitment	0.041 (0.085)	0.483	not supported
2bii	construction → commitment	**0.259 (0.082)** **	3.143	supported
2ci	reflection → employability	0.104 (0.098)	1.060	not supported
2ci	construction → employability	0.022 (0.096)	0.226	not supported
2di	reflection → turnover	**0.249 (0.109)***	2.294	not supported
2dii	construction → turnover	**-0.242 (0.106)***	-2.285	supported
2ei	reflection → psy. contract fulfil	0.027 (0.066)	0.410	not supported
2eii	construction → psy. contract fulfil	0.122 (0.064)	1.896	not supported

β = parameter estimate; SE = standard error; *p<0.05. **p<0.01, ***p<0.001

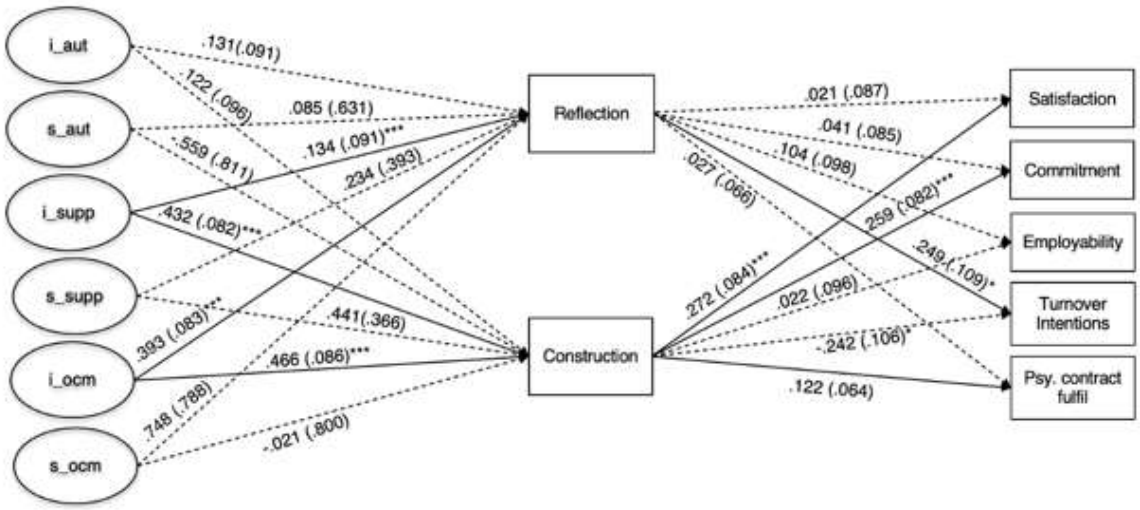

Figure 5.7: Latent growth model with paths from career resources to career crafting and crafting to outcomes

i = intercept; s = slope.

Mediating effect of career crafting. Using bootstrapping and following the procedures outlined by Preacher and Hayes (2008), mediation was examined through the effect of the predictors on the mediators (see Table 5.20), the mediators on the outcomes (see Table 5.21), and the predictors on the outcome while accounting for the mediators. Hypotheses 3 to 7

predicted that proactive career reflection and proactive career construction will each mediate the relationship between the trajectories in each career resource over time on each career outcome. However, given the results above, mediation was not supported. Thus, the tables with the output for the effect of career resources on career outcomes while accounting for the dimensions of career crafting are reported in Appendix 7.

5.2.2.2. Moderation Analysis

To begin the latent growth modelling of the moderators, the association between career self-efficacy and talent philosophy and the career resource trajectories were examined using Mplus version 8.5. The results are presented in Table 5.22. Career self-efficacy was found to have a significant effect on the intercept of autonomy (β=0.363, p<.001), supervisor support (β=0.396, p<.05), and OCM (β=0.369, p<.001), and only on the slope of supervisor support (β=-0.072, p<.05). Although no significant effect was found between inclusive talent philosophy and the career resource trajectories, fit in individuals and the organisation's stable talent philosophy significantly impacted the slope of autonomy (β=0.044, p<.05) and the intercept of OCM (β=0.163, p<.05). While the next step of the LGM analysis was to test the conditional indirect effect of career self-efficacy and fit in talent philsophy on the relationship between trajectories in career resources over time and career outcomes through career crafting, the analysis would not converge in Mplus due to sample size constraints. Still, the results of the association between the moderators (i.e., career self-efficacy and stable talent philosophy) and the predictors provide some evidence for the influence of career self-efficacy and talent philosophies in the relationship between career resources and career outcomes.

Table 5.22. The effects of career self-efficacy and talent philosophies on career resource trajectories

	Autonomy		***Support***		***OCM***	
	Intercept (SE)	*Slope (SE)*	*Intercept (SE)*	*Slope (SE)*	*Intercept (SE)*	*Slope (SE)*
Career self-efficacy	0.363 (0.071)***	-0.023 (0.021)	0.396 (0.082)***	**-0.072 (0.029)***	0.369 (0.084)***	-0.057 (0.032)
Diff. score – incl. talent phil.	0.101 (0.057)	0.005 (0.016)	0.046 (0.065)	-0.014 (0.022)	0.030 (0.067)	-0.002 (0.024)
Diff. score – stable talent phil.	-0.038 (0.065)	**0.044 (0.018)***	0.048 (0.075)	0.037 (0.024)	**0.163 (0.076)***	-0.032 (0.027)

*p<0.05. **p<0.01, ***p<0.001

In summary, no support was found for hypotheses 3 to 7, which proposed the mediating effect of the two dimensions of career crafting on the relationship between trajectories in each career resource and career outcomes. This study is underpinned by the conservation of resources theory, which posits that individuals with an initial level of resources

are better positioned to invest and gain additional resources, thereby creating a resource gain spiral (Hobfoll, 2001). However, one critical challenge in COR theory is the framing of time for resource processes to occur and fluctuate (Halbesleben et al., 2014). Because gain spirals using appropriate and similar approaches as the latent growth model is shown to occur on a daily basis (Halbesleben & Wheeler, 2015), the results of this study indicate the theoretical limitation of COR theory for observing any meaningful effect in the hypothesised career processes that require a long enough time to play out. Also, hypotheses 8 to 17, which proposed that proactive career reflection and construction will mediate the relationship between trajectories in career resources over time and career outcomes, only when career self-efficacy is high and there is talent philosophy fit, could not be fully tested and thus not supported. Studies found sample size to influence the convergence rates of latent growth models despite the inconclusive definition of how large sample sizes should be (MacCallum, Roznowski, & Necowitz, 1992; Hamilton, Gagne, & Hancock, 2003). Adequate sample size is believed to be based on various conditions such as complexity and type of model, variables distribution and strength of relation among latent constructs (Muthen & Muthen, 2002). In the end, the constraints of COR theory and the latent growth model restricted this study's capacity to observe significant effects for trajectories in career resources.

5.4. Discussion

The primary purpose of this study is to advance understanding of the vital role of career resources in shaping individuals' career activities and goals. Increasingly, researchers are recognising the role that organisational inducements play in shaping employees' career development. However, little attention has been given to understanding these inducements as resources that act as critical determinants of these career effects. Thus, underpinned by the conservation of resources theory, this study develops and tests how trajectories in three essential career resources at different levels of the organisation each influence the dimensions of career crafting - proactive career reflection and career construction - that impact a range of career outcomes. In doing so, this study contributes to the careers literature by emphasising the importance of resources as a determinant of career goal attainment.

To interpret when and why these career effects arise, a longitudinal mediation and moderation model was developed. Researchers have theorised and recently examined career resources as dynamic entities for individuals to successfully manage their careers (Hirschi, 2012; Hirschi, Nagy, Baumeler, 2018; Haenggli & Hirschi, 2020). Equally, studies have steadily found the existing theorised components of career resources to be associated with various positive outcomes (Ng & Feldman, 2014; Akkermans & Tims, 2017; Lo Presti, Pluviano, & Briscoe, 2018). As discussed in the review of the literature, research on the

components and consequences of career resources is growing; still, understanding changes over time in different career resources and the generalisability of career resources across different samples and employment contexts remains limited (Hirschi et al., 2018; Haenggli & Hirschi, 2020). Although scholars have investigated the association between career resources and career success (Hirschi et al., 2018; Blokker et al., 2019; Haenggli & Hirschi, 2020), this study, to the best of my knowledge, is the first to examine the dynamic capabilities of career inducement by exploring them as resources. Also, it examines the outcomes of other career-related constructs beyond career success, as well as the mechanisms and boundary conditions underlying the linkages between career resources and career outcomes.

Thus, the research model developed based on COR theory begins with the trajectories of job autonomy, supervisor support and organisation career management, as they, over time, relate to the dimensions of career crafting – proactive career reflection and proactive career construction. Next, the model moves to the relationship between each dimension of career crafting and each career-related resource - career success, career commitment, internal employability, turnover intentions and psychological contract fulfilment. It then unravels the indirect effect of the trajectories in each career resource on the career outcomes through the mediating role of proactive career reflection and proactive career construction. The research model then concludes by examining the boundary conditions of career-self efficacy and talent philosophies in the indirect relationship between career resources and career outcomes through the dimensions of career crafting. However, the empirical model begins with a standard longitudinal analysis of the effect of job autonomy, supervisor support and organisation career management on each career outcome through proactive career reflection and proactive career construction. Next, the boundary conditions of career self-efficacy and fit in talent philosophy in the indirect relationship between career resources and career outcomes are assessed in a cross-lagged analysis. Subsequently, the mediating effect of proactive career reflection and career construction in the relationship between trajectories in career resources over time and career outcomes is investigated using a more complex latent growth model. The empirical model testing concludes with a latent growth modelling of the indirect effect of career resource trajectories on career outcomes through the moderators of career self-efficacy and talent philosophy.

Beginning with the empirical model, this study preliminarily tested the relationship between each career resource (i.e., job autonomy, supervisor support and organisation career management) and career-related outcomes (i.e., career satisfaction, career commitment, internal employability, turnover intentions and psychological contract fulfilment) through the mediating influence of proactive career reflection and proactive career construction. Although

this is the first study, to the best of my knowledge, to explore the indirect effects of career resources on a range of career outcomes, a general understanding of the mediating role of career crafting on such relationships is non-existent. The findings of the linear longitudinal analysis empirically provide support for the linkage between each career resource and all the career-related outcomes through proactive career reflection. After receiving career inducements from one's employer, employees report higher levels of career goal attainment, and this is mediated by the development of their career interests and motivations associated with proactive career reflection. Besides, career resources are posited to be activated and deployed through behaviours of proactive career management (Hirschi et al., 2018; Haenggli & Hirschi, 2020). Proactive career construction mediates between the three examined career resources and only the outcomes of career satisfaction, career commitment and psychological contract fulfilment. The positive relationship between career resources and career outcomes in the presence of the dimensions of career crafting extends the findings of a positive correlation between career resources and career crafting found by Janssen and colleagues (2021). Consistently, scholars argue that employer support for career-related activities and concrete resources from supervisors can facilitate employees' career development in the direction they want (Tims & Akkermans, 2020). Also, these results agree with COR theory, showing that the dimensions of career crafting may be considered a personal resource that employees strive to develop and maintain. This vital resource is triggered by organisational-related career inducements or resources and results in individuals' career-related outcomes. Although there is an absence of support for the mediating role of proactive career construction in the relationship between the three career resources and the outcomes of internal employability and turnover intention, this may be because employees with limited career resources may cease engaging in networking and self-profiling actions as a way of conserving their available resources to explore opportunities within and outside the organisation. Support for this line of reasoning may be drawn from the principles of COR theory, which posits that because resources travel in packs, individuals with fewer resources are likely to experience resource loss, which leads to defensive attempts to conserve remaining resources (Halbesleben, 2010; Halbesleben et al., 2014). This finding implies that, for instance, employees who receive support for career development from their supervisors but have limited control over their daily job tasks may scale back on resource investment (i.e., proactive career construction) and identify alternative roles within the organisation that facilitate their career growth. These employees may also reflect on their career prospects in other organisations. Although scholars contend that the cognitive element of career crafting, that is, proactive career reflection, typically precedes proactive career construction (Haenggli & Hirschi, 2020), the findings of this study suggest that the two dimensions of career crafting independently occur, such that the effect of one is not dependent on the other. Also, the ongoing debate that

career self-management acts as a substitute for organisational career management was refuted by this study's finding, which showed that one reinforces the other and emphasises career as a partnership between individuals and the organisation. Thus, this study adds to the scant literature on career crafting by providing a better understanding of the antecedents and outcomes of proactive career reflection and career construction. Overall, the findings from the linear longitudinal analysis suggest that the two dimensions of career crafting are essential but neglected mechanisms in understanding how access to career inducements or resources produces career-related outcomes.

Next, the moderating role of career self-efficacy and talent philosophy in the indirect relationship between career resources and career outcomes through career crafting was preliminary tested in a linear longitudinal analysis. Interestingly, of the two boundary conditions, support was only found for talent philosophy, specifically, fit in stable beliefs of talent. The finding for talent philosophy suggests that context plays a crucial role in individual career management. In other words, the indirect relationship of career resources to career outcomes through career crafting is stronger among employees with high person-organisation talent philosophy fit. This implies that individuals who believe that people are born with talent and are employed in an organisation that upholds the same philosophy may see the work environment as enabling the development of their career aspirations. For instance, identification with the organisation is seen to encourage a willingness in employees to act proactively (Wikhamn, Asplund & Dries, 2021). The findings of this study are also in accordance with the empirical evidence of recent research emphasising the moderating role of person-organisation fit (Malhotra, Sahadev, & Sharom, 2022). The partial finding for the moderating role of fit in stable talent philosophy alone and not inclusive talent philosophy suggests that in an organisation where talent management practices are exclusively implemented, a larger proportion of employees or 'non-talents' are less likely to have a similar talent philosophy as the organisation and more likely to perceive limited access to career inducements and talent management practices. This aligns with recent empirical evidence that found associations between manager's talent philosophies and perception of the organisation's talent management practices (Meyers et al., 2020). More so, it is argued that stable beliefs of talent often correspond with an exclusive talent philosophy (Dries, 2013; Meyers et al., 2013). Thus, the argument that fit in talent philosophy creates an enabling environment for employees to build their resource pool for career self-management may only hold when the shared belief of talent is either stable or exclusive. However, inclusive beliefs of talent was found to be prevalent in smaller organisations compared to exclusive talent philosophy in larger organisations. Therefore, Future research may advance this study's findings by assessing the role of organisation size in the perception of talent philosophy fit.

The nonsignificant finding for the moderating role of inclusive talent philosophy may be due to the initial reliability scores for inclusive talent philosophy which was below .70. Although the three reverse-coded items were excluded from the testing of individuals' and the organisation's measure of inclusive talent philosophy in line with a study that found these three additional items to generate confusing results (Pantouvakis & Karakasnaki, 2018), no support was found for inclusive talent management. Research shows that employees who attach value to merit-based distribution of organisational resources and those categorised as 'talented', considered inclusive talent management to be less fair than exclusive talent management (Dries & Kase, 2023). This finding highlights the role of perceptions and interests in the assessment of one's talent philosophy and that of the organisation. Future research may thus be conducted in organisations with hybrid talent management practices using experimental methods that explore the preferences of talents, nontalents and employees as a whole. Overall, while it is reasoned that investigating the moderating role of person-organisation fit (Boon et al., 2011) and talent philosophies are prolific research areas (Meyers et al., 2020), studies on both are still lacking. By examining the moderating role of fit in talent philosophy, this study makes a vital contribution to the careers literature, as little is known about the contextual conditions that regulate the effects of career resources. Although the association between career resources and proactive career behaviour may vary depending on the specific characteristics of employees, no support was found for the moderating role of career self-efficacy. This finding suggests that career inducements or resources influence the achievement of career goals through employees' proactive career behaviours, irrespective of their level of career self-efficacy. In line with COR theory, lack of personal resources (i.e., career self-efficacy) may be assuaged by the availability of other resources required to adequately cope with career demands (Hobfoll, 1989). Since self-efficacy has been considerably used as a motivating tool for career development (Restubog, Florentino, & Garcia, 2010), future research may consider the dual mediating roles of career self-efficacy and career crafting in the relationship between career resources and career outcomes.

Subsequent to the preliminary analysis, the hypothesised model, starting with hypotheses 1a to 1c for the direct relationship between the trajectories in job autonomy, supervisor support and organisation career management on the dimensions of career crafting – proactive career reflection and proactive career construction were tested. This proposition was examined in response to the recent call for future research to investigate how increases in career resources can help to improve understanding of proactive career behaviours (Nalis, Kubicek, & Korunka, 2022). Contrary to expectations, the results demonstrated the significance of only the base levels of supervisor support and OCM to proactive career reflection and career construction. The fact that trajectories in supervisor support and OCM

had no significant impact on career crafting could be because once employees perceive and receive initial support for career development from their supervisors and the organisation, they are immediately motivated to engage in proactive behaviours related to networking, self-profiling and reflecting on their skills and career motivations. Also, relational and organisational inducements for career development are considered costly investments that promptly communicate employees' value to the organisation and, importantly, shape their motivation to form and maintain lasting interpersonal relations and exert extra-role behaviours (Hui, Lee, & Wang, 2015; Walker & Yip, 2018). Thus, as demonstrated in the preliminary longitudinal analysis, the availability of support from one's supervisor and the organisation at any given time is adequate for an employee to feel motivated to engage in career crafting. For autonomy, the nonsignificance of its initial level and slope to both proactive career reflection and career construction appears somewhat enigmatic. Studies have found autonomy to be related to the proactive behaviour of job crafting (Petrou et al., 2012). When individuals perceive their jobs as providing autonomy, they go beyond the limited specifics of their job descriptions and engage in proactive activities to improve work processes (Marinova et al., 2015). Job autonomy is also shown to be positively related to innovative behaviour daily (Orth & Volmer, 2017), just as a high degree of autonomy for five consecutive days was found to be related to higher levels of work motivation and identification of opportunities for change (Zampetakis, 2022). A potential explanation for the nonsignificant result could be that job autonomy constitutes a more distal antecedent of career crafting that comprises processes such as the perception, evaluation and utilisation of situational autonomy (ibid.). Additionally, the influence of cognitive-motivational states, such as self-efficacy, on the link between autonomy and career crafting may be underestimated. It is suggested that employees respond differently to job characteristics based on their personalities (Oldham & Fried, 2016). This argument is supported by empirical evidence that shows that engaging in proactive behaviours requires having influence over a range of work-related decisions, with a critical assessment of one's personal capability to engage in these activities (Parker, Williams, & Turner, 2006). Further research is thus needed to investigate the extent to which employees' career proactivity is influenced by their stable traits and high job autonomy over a longer duration.

Next, hypotheses 2a to 2e, which postulated a positive direct relationship between the dimensions of career crafting and each career outcome, were examined. The findings revealed that of the two dimensions of career crafting, proactive career construction alone had significant positive associations with subjective career success (i.e., career satisfaction) and career commitment and a negative relation with turnover intentions. These findings suggest that employees who undertake networking and self-profiling actions are, without a doubt, devoted to their career, attain personal satisfaction in their chosen career and have less

thought about leaving the organisation where their career is being nurtured. Although scholars suggest that networking and visibility activities are associated with depersonalisation, often implemented to enhance one's career outside the organisation (Soares & Mosquera, 2021), this study's results show that individuals also engage in career management behaviours to promote their career growth within the organisation. These results are consistent with the resource investment corollaries of COR theory (Hobfoll, 1989; Hobfoll, 2001), implying that employees are motivated to engage in proactive career construction to protect the things (career outcomes) they value. However, the absence of support for the association between career construction and psychological contract fulfilment may be because individuals taking control of their career management through networking kindles the perception that their employer has yet to fulfil promised obligations. While contemporary careers infer that employees' career development is self-directed, empirical evidence indicates that employees favour a balanced contract with their employer (Hamilton & Von Treuer, 2012). Likewise, no significant relation was found between career construction and internal employability. A possible explanation could be that irrespective of employees' engagement in career-related networking and self-profiling, their status in the organisation may impact their potential to access similar roles in the internal labour market. Empirical evidence suggests that being a low-status member of the organisation may become so internalised that employees begin to see few employment prospects (Thozhur, Riley, & Szivas, 2007). Equally, studies have shown that employees of a favourable group (i.e., high potentials) exert more discretionary efforts that provide better internal career advancement opportunities (Sumelius, Smale, & Yamao, 2020). This finding provides support for the interconnectedness of career and talent management. Intriguingly, of the five career outcomes, support was only found for the positive relationship between career reflection and turnover intentions. A possible interpretation of the results of the nonsignificant relationships between proactive career reflection and career outcomes is that organisational culture expressed through career management practices that target only the behavioural element of career crafting and not the cognitive aspect determines how employees reflect on their career identity and identification with the organisation. In that sense, the study's results add to the evidence that context plays a crucial role in individual career management. Another logical explanation for this result could be that reflecting on the strengths, skills and shortcomings regarding one's career does not automatically imply achieving satisfaction, commitment, internal employability or psychological contract fulfilment. These results corroborate the study of De Vos and Soens (2008), who also found no direct relation between the reflective component of career self-management and the outcomes of career success and internal employability. However, thinking about one's career prospects within an organisation may ignite thoughts about leaving. Research suggests that turnover intentions arise from people's assessment of their current job and organisation, such that

shocks prompt reconsidering earlier attachment to an organisation (Hom et al., 2017; Peltokorpi, Allen, & Shipp, 2023). These findings contribute to turnover research by showing that employees' cognitive and behavioural activities can influence turnover intentions. It also calls for a more comprehensive analysis of the positive and negative antecedents of turnover intentions.

While there is some correlation evidence through the linear longitudinal analysis that supports hypotheses 3 to 7, linking career resources to career outcomes through career crafting, interestingly, no support was found for the structural model. A possible explanation for this study's results is that when the additive or trajectories effect of career inducements or resources on career outcomes are taken into account, career crafting may play little to no role as a mediating mechanism. These results align with COR theory, showing that job autonomy, supervisor support and organisation career management are resources that employees strive to maintain and develop. Moreover, it is likely that in conditions under which career crafting is seen as a threat or added demand, career resources are considered adequate for employees to feel motivated to achieve their desired career outcomes. Despite the nonsignificance of the mediating role of career crafting in the relationship between career resource trajectories and career resources, support was found for the direct connection of the initial level of career resources. Specifically, the initial level of job autonomy in the presence of career reflection was negatively related to turnover intentions and positively related to psychological contract fulfilment in the company of both career reflection and career construction. This finding for the initial level of job autonomy may be due to ceiling effects, as there is little room for growth when employees are already acting autonomously. Additionally, the stable nature of job autonomy may be explained by the relative stability of the scale used to measure this construct. Also, the study by Makikangas and colleagues (2010) showed employees with an initial level of job resources to maintain the initially obtained level over 12 weeks. Generally, employees perceive work conditions associated with freedom and self-directedness as feeling "at home" in their employment organisation (Dysvik & Kuvaas, 2013), such that they believe the employer has fulfilled its obligation in the employment relationship and have fewer intentions about leaving. This argument is corroborated by the research that showed the provision of job control to stimulate feelings of psychological contract fulfilment (Birtch, Chiang, & Van Esch, 2016). This study's findings provide vital insight into the debate as to whether job autonomy is stable or dynamic (Sawang et al., 2020). Also insightful in the direct relationships is the finding that supervisor support in the presence of both proactive career reflection and career construction was found to be positively related to all the career outcomes and negatively to turnover intentions. These results are in accordance with those of several authors who demonstrated that support from supervisors is relevant in enhancing

subordinates' career success (Yang, et al., 2018), and individuals who have access to and utilise support from their social context are less prone to encountering strain (Dewe, O'Driscoll, & Cooper, 2010). For instance, employees' perception of organisational support for career development was found to positively affect career satisfaction (Guan, Zhou, Ye, Jiang, & Zhou, 2015). Also, the traditional notion of formal and informal help from one's employer is shown to contribute to the fulfilment of psychological contract (Sturges et al., 2005). Furthermore, the initial level of OCM was found to have a significant direct impact on career satisfaction, career commitment and psychological contract fulfilment while accounting for proactive career reflection and career construction. The finding for the initial level and not the slope factor of OCM may be explained by the implementation strategy of these deliberate practices in organisations, whereby the time gap between one practice and another may take longer than six months, thus limiting their potential growth effect. Also, based on this study's samples obtained from employees across multiple organisations, it is difficult to understand how OCM practices are classified, developed, implemented and impact employees' careers. Authors suggest that different OCM practices can have short and long-term effects depending on the content and context of the organisation. Thus, future research should investigate the role of context in changes in OCM practice implementation (Bagdadli & Gianecchini, 2019). As employees value the resources provided by the organisation in the form of career practices, they become more loyal and committed to their careers and the organisation. The findings from this study contribute to the careers literature by assessing the relationship between OCM practices and a diverse range of outcomes.

Given that the mediating effect of career crafting in the relationship between career resource trajectories and career-related outcomes provided support for the direct rather than indirect impact, these results support the ensuing argument that base-level career resources may be considered adequate to stimulate a range of career outcomes. Although there is increasing interest in the literature to understand how career resources fluctuate and produce their effects (Hirschi et al., 2018), this study is the first attempt to run latent growth modelling as a proper test of COR theory. Also, the career literature has continuously emphasised the role of career self-management in the relationship between career management practices and individual outcomes. Yet, no study has incorporated the role of time in these processes. The results of this study showed that the timing between the observation of career resource trajectories and the enactment of career crafting actions towards the career outcomes may not have been appropriate for the outlined trajectories not to dissipate. Research on day-level exchange between resource investment, perceived resource availability and future resource investment revealed that these processes occur over short periods of time (Halbesleben & Wheeler, 2015). This raises the question of the adequacy of papers suggesting the use of

COR theory in career research without properly testing its premises. Still, future research should assess the indirect effect of the two dimensions of career crafting on career resources and career outcomes using shorter time frames. Additionally, the unexpected result for the hypothesised model of this study may perhaps be explained in light of signalling theory. According to this perspective, organisational and talent management practices carry symbolic meanings that influence employees' reactions and outcomes. Perry-Smith & Blum (2000) suggest that organisations that invest adequate time and resources in career inducement or talent management activities signal to employees the organisation's willingness to offer special treatments that produce positive attitudes. Although signalling theory has been used multiple times to understand the reactions of talents to talent management practices (De Boeck, Meyers & Dries, 2018) and organisational performance as an output of human resource practices (Eby, Allen, & Brinley, 2005), little is know about the symbolic meaning and impact of career resources. Thus, future research may extend this logic to understand how career resources may relate to proactive career behaviours and career outcomes from the tenets of signalling theory.

Lastly, hypotheses 8 to 12 and 13 to 17 sought to determine whether proactive career reflection and career construction will mediate the relationship between trajectories in career resources over time and career outcomes, but only when career self-efficacy is high, and there is talent philosophy fit. The findings of the basic latent growth model indicated that career self-efficacy was significantly related to the intercept and slope factors of supervisor support. In comparison, the difference in individuals and the organisation's stable talent philosophy was related only to the slope of job autonomy and the intercept of organisation career management. Due to the limited sample size of this study, further analysis, such as the full moderating role of career self-efficacy and fit in stable talent philosophy, could not be performed. However, these initial findings indicate that a positive evaluation of one's capacity to access and utilise supervisor support for career development may foster employees' proximal career reflection and career construction to optimise their distal career-related outcomes. This argument is supported by empirical evidence that engaging in proactive behaviours requires having influence over a range of work-related decisions, with a critical assessment of one's capability to engage in these activities (Parker, Williams, & Turner, 2006). Furthermore, the positive and significant association between stable talent philosophy and career resources highlights the importance of considering the organisational context when examining career issues. It may well be that discrepancies between executive leaders, line managers, and individuals' views on the meaning of talent within the organisation influence how and to whom career resources in the form of career inducements are distributed. Support for this theoretical assumption is shown in a recent study that found inconsistency between

senior leaders' definition of talent versus the processes and decisions in talent identification (McDonnell, Skuza, Jooss, & Scullion, 2021). These constructs are essential because no study has examined the moderating role of career self-efficacy nor the role of talent philosophies within the career literature. Ultimately, the findings from this study contribute to debates regarding the role of agency and context in how career and talent management practices are understood and enacted in organisations (Gallardo-Gallardo, Thunnissen, & Scullion, 2020). It also provides valuable insight into the implications of career resources, career crafting, career self-efficacy and talent philosophies for scholars and practitioners.

5.5. Conclusion

This study yields several strengths that support the obtained findings. First, it advances the stream of career research by examining career inducements or practices at different levels of the organisation as dynamic career resources. In adopting this longitudinal approach, this study aimed to reduce the common method bias that arises from collecting data at one time point. Second, to re-emphasise the role of agency in career management, this study investigated the new construct of career crafting as an important dual mechanism and resource investment behaviour for unravelling the linkage between career resources and career outcomes. This study also provides evidence for the benefits of individual resources, specifically, career self-efficacy for employees' access to career resources, further supporting the premise from COR theory that people possess a given level of personal resources (Hobfoll, 1990). Finally, this study contributes to the careers and talent management literature by showcasing how talent philosophies that determine the practices implemented in organisations influence individuals' career development. Empirically testing the consistency between individuals and the organisation's talent philosophy is considered the first step to understanding how organisations regard their talents, the role of resources in career development, and employees' reactions to career resources via career crafting. In other words, this study puts forward talent philosophies, a related yet distinct body of research from careers literature, as a theoretically helpful construct for understanding the relationship between career resources and career-related outcomes.

CHAPTER SIX: SUMMARY, IMPLICATIONS AND CONCLUSION

6.0. Chapter Summary

In the final chapter of this thesis, the main results of the study are succinctly summarised. Next, the research contributions and implications for research and practice are outlined. This section is followed by the limitations of this study and recommendations for future research. The chapter closes with a conclusion of this thesis.

6.1. Summary of Key Findings

The purpose of this thesis was, firstly, to progress understanding of the complimentary nature of talent and career literature by examining how traditional-organisational career management practices function as resources that enable employees to achieve their career-related goals. Secondly, to apply the conservation of resources (COR) theory to careers research by testing the dynamic and fluctuating potential of resources and their impact on employees' career outcomes. Thirdly, to examine the two dimensions of career crafting as individuals' career management process and essential mechanisms in the relationship between career resources and career-related outcomes. Fourthly, to bolster the interactive effect of the personal disposition of career self-efficacy and contextual condition of career resources as powerful determinants of employees' career self-management and career outcomes. Finally, this thesis provides additional evidence for the integrative nature of career and talent management by exploring the moderating effect of fit in individuals and the organisation's talent philosophy on employees' behaviours and outcomes. Although the relationship between organisational or career inducements and individual outcomes has been theoretically and empirically established, more research is needed to fully understand how these incentives assist employees in preparing for and coping better with the reality of contemporary careers to achieve their desired career outcomes. Studies on traditional career practices have primarily relied on cross-sectional and cross-lagged research designs, thus limiting knowledge about the accumulation and dynamic effect of these practices. To overcome this constraint, this study used the latent growth curve to refine and extend understanding of organisation-based career practices. The empirical findings reported in this thesis were based on the quantitative survey of full-time employees in the UK over six months.

Adopting the principles of COR theory, the study tested how trajectories of job autonomy, supervisor support and organisational career management over time each influence employees' career success, career commitment, internal employability, turnover intentions, and psychological contract fulfilment through the mediating effect of career crafting.

This study utilised the dimensions of career crafting - proactive career reflection and proactive career construction - to each hypothesise mediation mechanism linking career resources to career-related outcomes. This is the first testing of the dimensions of career crafting as a resource management behaviour for achieving valued ends. First, the mediating role of career crafting in the relationship between career resources and career outcomes was tested in a linear longitudinal analysis. Then, the moderating role of career self-efficacy and talent philosophies were preliminarily examined. Next, the direct effect of career resources over time on the two dimensions of career crafting was tested. This analysis was followed by the direct impact of career crafting on each career outcome was examined. Afterwards, the indirect effect of the trajectories in career resources on career outcomes through career crafting was tested. Lastly, the moderating role of career self-efficacy and talent philosophies in the indirect impact of career resource trajectories on career outcomes through career crafting was explored. The cross-lagged model testing found support for the mediating role of the two dimensions of career crafting and the moderated mediation impact of talent philosophy in the relationship between career resources and career outcomes. Although the initial levels of supervisor support and organisation career management were both significantly related to proactive career reflection and career construction, the slope factor of each career resource over time was not significantly related to the two dimensions of career crafting. For the next pathway, from the dimensions of career crafting to career outcomes, proactive career reflection was significantly associated with turnover intentions alone. In contrast, proactive career construction was significantly related to career satisfaction, career commitment and turnover intentions. The indirect effect of career crafting on the relationship between career resource trajectories and career outcomes was nonsignificant. Thus, against expectations, the mediating roles of proactive career reflection and career constructions were not empirically supported. Notwithstanding the findings of the indirect and conditional indirect effect for the latent growth model, the results of the linear longitudinal analysis provide empirical validation for career crafting as a vital mediating mechanism in the career development process and talent philosophy as a compelling contextual boundary condition. Also, findings for the initial level of supervisor support as the career resource in the organisation for producing the most outcomes enhancing employees' subjective career success (career satisfaction), career commitment, internal employability, and psychological contract fulfilment, and reducing their turnover intentions provide support for the vital role of supervisors as key organisational gatekeepers. Closely related was the initial level of organisation career management, which was shown to have a significant direct effect on career satisfaction, career commitment and psychological contract fulfilment. Together, these findings offer support for the significance of supervisor support and organisational career management for other career outcomes besides career success. Despite the non-convergence of the full moderated meditation hypothesised

model, findings provide support for the significant impact of career self-efficacy on supervisor support and stable talent philosophies on autonomy and organisation career management.

6.2. Summary of Implications

This study contributes to existing knowledge in theoretical, empirical, and practical ways.

6.2.1. Theoretical Implications

As the interest of scholars on the topic of career resources is growing, this thesis contributes to the literature by presenting the constructs of job autonomy, supervisor support and organisation career management into the career resources framework as vital inducements or practices from the organisation that influence employees' career goal attainment. In doing so, it addresses concerns regarding the balance between organisational and individual procedures for career management. Employees still have expectations of the organisation and want support for as long as they choose to stay, despite the prevailing arguments for boundaryless careers (Clarke, 2013). This study also contributes to the careers literature by studying how these incentives function as career resources that develop over time to produce career-related outcomes. While some theories are more advanced in the literature for understanding career management, the conservation of resources (COR) theory describes the extent to which individuals are motivated to acquire specific resources, depending on their value and the likelihood of acquiring them (Halbesleben et al., 2014). COR theory also emphasises the dynamic nature of resources and provides support for the fact that personal and social factors have accumulating and fluctuating effects on employees' behaviours and outcomes. From investigating organisational or career inducement as resources at the individual, team and group level, this study's results support the conceptualisation of supervisor support for career development and organisation career management as essential career resources and reinforce the importance of organisation-based career resources for improving employees' chances for career-related outcomes.

This thesis also adds to the scant literature on the recently developed occupational choice of career crafting by examining its mediating role. While existing empirical studies have shown career crafting to be an outcome variable (Janssen et al., 2021; Nalis, Kubicek, & Korunka, 2022), this study, to our knowledge, is the first to investigate the two dimensions of career crafting as separate constructs for connecting career resources with career outcomes. In actively crafting their careers, employees take the initiative to expand their pool of resources to explore other career opportunities and achieve set objectives (De Vos et al., 2019). To start with, employees are motivated to engage in career crafting when perceptions of the career

resources available to them are high. Expressly establishing that supervisor support and organisational career management function as resources that, at any given time, relate to both career reflection and career construction adds to the findings by Janssen and colleagues (2021) regarding the linear relationship between career resources and career crafting. Then, the study's result found support for the relationship between career crafting and career outcomes. Of the two dimensions, career construction was shown to be significantly associated with the most outcomes - subjective career success (i.e., career satisfaction), career commitment and turnover intentions. It is noteworthy, however, that the results revealed that career reflection potentially has a negative effect by increasing turnover intentions. Individuals with significant levels of proactive career reflection were more likely to expand their career scope and assess their career prospects elsewhere. Although mediation through career crafting was found for the preliminary analysis and not the hypothesised model, these results add to the recent suggestion of Janssen and colleagues (2021) to explore how career crafting may influence the attainment of career success. Moreover, in studying other career outcomes, such as career commitment, internal employability, turnover intentions, and psychological contract fulfilment, apart from the perpetually examined career success, this thesis contributes to understanding how different career resources have different effects on a range of career-related outcomes (Hirschi et al., 2018). The direct relationship between each career resource and the outcomes in the presence of the mediators confirms that career success, career commitment, internal employability, turnover intentions, and psychological contract fulfilment are valuable outcomes for employees with supervisor support for career development.

This thesis also shows the importance of contextual and individual factors in influencing employees' behaviours towards their desired career outcomes. Specifically, this study's findings suggest that employees with high career self-efficacy – representing the resource from oneself – may feel confident to access a variety of organisational inducements, such as supervisor support and organisation career management, that may enable them to craft their careers and achieve career-related outcomes. Although prior studies examining the moderating role of self-efficacy have focused on general self-efficacy (Speier & Frese, 1997; Siu, Lu, & Spector, 2007), this study identifies the importance of career self-efficacy, which is more suited to the career context. Also, this study's results are in accordance with COR theory, showing that career self-efficacy may be considered a personal resource that makes employees likely to gain additional resources better, creating a positive spiral of resources (Hobfoll, 1989). Besides, scholars have called for further studies extending COR theory to work outcomes beyond stress (Hobfoll et al., 2018). This finding thus advances recent studies

suggesting that individuals' outcomes are determined by the interplay of personal and contextual elements (Parker, Cutts, Nathan, & Zacher, 2019).

Additionally, this thesis illuminates the effect of talent philosophies as an under-researched contextual condition on individuals' career-related choices and outcomes. It adds to the scarce research on the interconnectedness between career and talent management. The choices here refer to proactive career behaviours exhibited in response to the organisation's talent philosophy and accessibility to resources for the attainment of valued career outcomes. In other words, the beliefs of the organisation's key decision makers regarding talent may influence the career management practices implemented and, by extension, the processes, and outcomes they trigger (Meyers et al., 2020). This study's findings suggest that the degree to which individuals and the organisation perceive talent to be stable affects employees' career activities more than the perception of talent as inclusive. Employees with a high person-organisation talent philosophy fit will likely understand the classification of talent valued and needed in the organisation. They may better interpret or agree with the signals that organisational career inducements or practices send, such that these inducements or resources positively affect employees' career self-management and career outcomes. Although individuals and the organisation's fit in talent philosophy have not received adequate research attention, the results of this study are in accordance with prior studies that found congruence between employees and the value system of the organisation to determine how employees respond to the signals sent by the organisation through its best HR practices (Boon et al., 2011). A critical gap in the careers literature is the unclear boundary conditions that strengthen or weaken the effect of career resources on career outcomes. Therefore, by exploring the moderating effect of talent philosophies, this thesis has unlocked additional avenues for the consideration of the areas of overlap between career and talent management.

From a methodological viewpoint, this study is the first to adopt a latent growth modelling approach to test the recommendations for exploring how career resources change over time (Hirschi et al., 2018). Latent growth models allow for testing growth or changes by highlighting individuals' initial status and changes over a specified period (Duncan & Duncan, 2009). Although the findings of this thesis are more supportive of the stable nature of three career inducements or resources – job autonomy, supervisor support and organisation career management - it provides a more nuanced perspective of career resources by investigating the nature of their longitudinal trajectories and their outcome implications. It further showcases the shortcomings of COR theory for examining career-related variables that take longer to produce their effects and outcomes. Overall, the theoretical model of this study progresses

understanding of career resources, career crafting and career-related outcomes, proposes career self-efficacy as a critical personal resource and talent philosophies as a vital contextual factor influencing employees' response to trajectories in career resources and raises critical questions regarding the appropriateness of the principles of conservation of resources theory to careers research.

6.2.2. Practical Implications

Scholars and practitioners are continuously interested in increasing career self-management as a means to achieving individual and organisational goals. However, HR practitioners and career counsellors should focus on more than just career adaptability, employability, and career competencies. Organisational career incentives such as having autonomy on how tasks are implemented, receiving regular career-related feedback from one's supervisor and tailored personal development plans from career counsellors can have just as much impact, if not more, on promoting career self-management within the organisation. Importantly, organisations targeting sustainable competitive advantage need to make optimal use of their talents and high potentials by promoting the most effective career resources to improve contextual conditions and foster continuous career resource increase (Meyers & Van Woerkom, 2014; Haenggli & Hirschi, 2020). Instead of assuming that traditional or talent management is old-fashioned, it can be argued that organisations with stable career structures are in a better position to manage existing talent shortages and the 'war for talent' (Michaels, Handfield-Jones, & Axelrod, 2001). In other words, having a stable foundation of talented employees who are knowledgeable about the organisation's background and purpose is crucial for long-term progress (Dries, Marescaux, & Van Zelderen, 2022). Besides, studies suggest that traditional forms of career practices are preferred by most people (Dries & Pepermans, 2008; Dries, Van Acker & Verbruggen, 2012). Therefore, special attention should be given to providing a high level of inducements associated with traditional organisational careers that increase employees' perception of building high-quality relationships with the organisation, thereby achieving their career aspirations.

Also, organisations that are known for supporting employees' career development and goals are likely to attract and retain top talents and have a positive employer brand. Employer branding is a reflection of an organisation's culture and a long-term strategy for managing organisational perception (Ambler & Barrow, 1996). It is also a crucial reputational factor contributing to sustainable competitive advantage (Backhaus, 2016). Given that organisation career management and supervisor support emerged as strong predictors of employees' career-related goals, employers can utilise these career inducements in creating the awareness of a strong company brand and thus, attracting highly skilled employees in the

organisation. Research also suggests that organisations associated with positive symbolic brands enable employees create meanings from their careers (Zhu et al., 2019). According to Lievens and Slaughter (2016), employer brands are influenced by organisational actions such as investment in human capital. Thus, from a career resource perspective, practices such as the provision of job autonomy, supervisor support and organisation career management promotes organisational brands and create symbolic meaning in employees that enable them to craft their careers and achieve their career-related goals within the organisation. Due to the important role of supervisors in these processes, it is crucial that in their daily interaction with subordinates, there is a strong communication of career support, as a way to cue to employees to express their capabilities within the organisation.

Furthermore, HR practitioners and managers should consider creating an environment that stimulates skills development, networking, and career motivation associated with proactive career behaviours. Activities geared towards improving employees' career crafting, such as the option for freedom regarding one's job task, support from supervisors, information sharing and developmental training, are beneficial for organisational success and well-suited to the realities of contemporary career contexts characterised by high volatility and rapid changes. Although employers may fear that enhancing employees' career development may lead to turnover, research shows no concrete evidence to support this claim (Rodrigues, Butler, & Guest, 2020). In order for employees to perceive traditional career practices as resources that support their engagement in career crafting, both HR and line managers need to coherently communicate to everyone, irrespective of their talent status, detailed information about the organisation's career incentives and talent management practices. As noted by Wikhamn, Asplund and Dries (2021), talent management practices have the potential to make a select group of employees perceive themselves as the organisation's favourite without being granted any formal talent status. Thus, opportunities for career self-management must be equally made available to contribute to the retention of key talents and non-talents. Moreover, organisations need to share the responsibility for talent management with the employees by using career and talent management practices to enhance proactive career behaviours and outcomes. This direction is highly relevant for organisations as proactive career behaviour is considered a bedrock for organisational success (Meyers, 2020).

Additionally, given the demonstrated importance of career self-efficacy on the utilisation of supervisor support, it may be beneficial for HR practitioners and career counsellors to focus on improving employees' beliefs about their capabilities. One way to begin this process is to acquire information about work and nonwork factors that fuel these beliefs and, after that, direct policies and activities to increase career self-efficacy. Also, line

managers or immediate supervisors could discern employees' career self-efficacy levels by observing their behaviours and then modifying the support provided in reference to each individual's level. For example, supervisors could provide subordinates with low career self-efficacy supportive resources in the form of mentoring programmes, goal-setting activities and timely feedback regarding their career goals. On the contrary, for subordinates with high career self-efficacy, supervisors could reduce the emphasis on extending encoded gestures and treatments that communicate in-group membership, with a detrimental impact on low career self-efficacious employees.

Finally, organisations considering an inclusive and developable approach to talent management (TM) in response to the purported adverse reaction of employees to exclusive TM may first attempt to recognise the talent philosophy operational in the organisation from the perspective of top management and individual managers. Research indicates that the implementation of HR or TM practices depends on the interest and talent philosophies of key actors involved in the implementation process, specifically line managers (Meyers & Van Woerkom, 2014). Hence, it is crucial for business leaders to clearly communicate the organisation's talent philosophy to line managers to limit the chances of sending ambiguous messages to employees whose perceptions influence their reactions and outcomes to TM practices. This study points to the importance of identification with the organisation in influencing the relationship between career inducement or talent management practices and employees' desired career outcomes; as such, information on employees' talent philosophies should be obtained to adequately understand the impact of perceived similarities or difference in talent philosophies on individual and organisational goals achievement. Moreover, the finding that supervisor support produces the most outcomes suggest that supervisors have the most effective role in the development of fit perception among employees. Organisations should therefore focus on fostering high-quality relationships between supervisors and subordinates to promote employees' talent philosophy fit perception with the organisation. Ultimately, employers can utilise the fit in individuals and the organisation's talent philosophy to counteract the potentially high turnover of employees with rare and valuable skills.

6.3. Limitations and Future Research

Although this study makes important contributions to the literature and contemporary organisation, it has a number of theoretical and methodological limitations that may be addressed in future studies. Firstly, trajectories in career resources were observed over a period of six months across four-week intervals. While this approach aligns with prior research conducted over similar time intervals (Chan & Schmitt, 2000), it potentially limits the ability to observe greater levels of growth or decline in career resources that may become evident over

longer time lags. As the results of this study showed that the relationship between career resources and career crafting and career crafting and career outcomes were relatively stable over the measured timeline, future studies could consider evaluating possible curvilinear and developmental trajectories over longer intervals and duration. Besides, the time between the provision and utilisation of job autonomy, supervisor support and organisation career management may influence whether employees can acquire additional resources to achieve their career goals. Moreover, HR managers and line managers as key actors of intended and actual career inducements or resources means that future research could consider gathering data over a period regarding their provision of supervisor support for career development and organisation career management to gain a holistic understanding of the organisation's approach to employees' career development. Also, this study relied on a convenience sample of full-time employees at different career stages across various organisational contexts. A more compelling examination of career resources may be made possible by considering the different career inducements and talent management practices available to employees categorised as talents and non-talents. Altogether, future research would benefit from extending the design of this study to different categories of employees and TM actors in identifiable organisations using a variety of time lags.

Secondly, career resources were identified at the formal (i.e., management) levels of the organisation. However, different forms of career management activities and their unique values for employees have been identified in the literature (Kossek et al., 1998). For instance, co-worker support was found to be an essential predictor for resource investment behaviours (Halbesleben & Wheeler, 2015). Likewise, informal career management help, such as career advice and mentoring, is shown to be just as important as formal career support (Sturges et al., 2002). Since both formal and informal organisation career management are revealed to be correlated with psychological contract fulfilment (Sturges et al., 2005), future studies could also consider examining other potentially necessary but informal career resources arising from the organisation that impact employees' career-related reactions and actions. More so, despite the longitudinal and analytic approach employed within this study, which can support reverse causality, causal directions were not hypothesised and tested. Career-related outcomes such as internal employability and psychological contract fulfilment may influence the attainment of supervisor support for career development and organisation career management that enable further achievement of career outcomes. Although reverse causality is possible, the observed model is congruous with current theories and empirical evidence utilising a latent growth modelling approach (Bentein et al., 2005; Liao, Wong, & Kong, 2022). Still, future research could specify hypotheses regarding reciprocal effects and untangle the

temporal sequence of the relationship between career resources and career outcomes using both longitudinal and experimental designs (Peterson et al., 2011).

Thirdly, as the mediation effect of career crafting was not supported for the hypothesised model, the time lag between career resources, career crafting and career outcomes may be inadequate to observe the hypothesised model. Thus, future research could replicate this study by incorporating sufficient measurement periods between the predictors, mediations and outcomes to assess the full mediations using multiple source data. In addition to the mediators, individuals and the organisation's talent philosophy were measured from employees' perspectives as potential moderators. Existing research has not engaged with line managers' definition of talent philosophy and its impact on subordinates' career in the organisation. Ideally, the perceptions of the employees, line managers and the organisation's talent philosophy would be measured to gain a complete insight into the impact of (mis)fit in talent philosophies on individuals' career outcomes. One key factor explaining individual differences in outcomes is the congruence or fit between a person's attribute and the peculiarity of a situation (Caldwell & O'Reilly III, 1990). Scholars indicate that developmental practices depend on the overall philosophy of the organisation and those responsible for its implementation, particularly line managers (Purcell & Hutchinson, 2007; Meyers & Van Woerkom, 2014). Thus, in addition to employees' perceptions, future studies could consider using objectively sourced data such as company policies and supervisor statements to measure the talent philosophy of the key actors in the organisation.

Fourthly, though six waves of data were collected, the study's design relied on self-report questionnaires, which increases the likelihood of common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). To address this shortcoming, participants were assured of the confidentiality and anonymity of their responses at each time point to reduce social desirability bias. Future research may consider utilising multi-source data (e.g., testing career resources, career outcomes and talent philosophies from the HR managers, supervisors and subordinates) to further limit the potential risk of common method bias. Also, self-report data may be complemented with objective measures such as organisational policy documents. More so, the study's sample is characterised by a relatively small sample size, which did not allow for a comprehensive multi-group and moderated mediation analysis. As organisations may provide several career management practices that employees may not be completely aware of, future studies could replicate this study on a larger sample in identifiable organisations and focus on across different life and career stages. Finally, with the limited access to organisations aggravated by the Covid-19 pandemic, Prolific samples proved effective in collecting high-quality data of repeated measures for this study. Landers and

Behrend (2015) noted that the Prolific platform might be vulnerable to repeated participation and shifts in the participants' pool owing to the issue of authenticating identities. This issue of verifying identities is not unique to online surveys, as traditional paper-based or mailed surveys could be completed by someone other than the intended recipient, thereby misrepresenting the demographics and responses (Wright, 2005). Future research could, therefore, consider replicating this study's model in a controlled environment.

6.4. Conclusion

Despite the abovementioned limitations, this thesis advances our understanding of the contemporary nature of career and talent management by examining how traditional career incentives and talent management practices function as resources that impact employees' career self-management and career outcomes. While the mediating role of proactive career reflection and career construction in the relationship between career resources and career outcomes was nonsignificant at the dynamic analysis, this study shows the importance of resources at different levels of the organisation for enhancing employees' career goal attainment. It also reinforces the importance of identifying a unique but vital set of career resources and their relation to career-related outcomes that share some similarity with career success. The first two research questions regarding how career resource trajectories evolve dynamically among employees and the career resources most impactful for career-related outcomes were partly answered by the finding that at each given time, supervisor support positively and significantly impacts the outcomes of career satisfaction, career commitment, internal employability and psychological contract fulfilment and negatively impact employees' turnover intentions. The importance of access to supervisor support and its relation to career-related outcomes is further supported by research indicating that positive and high-quality exchanges between employees and managers define individual, team and organisational outcomes (Hobfoll et al., 2018).

This thesis also attempted to advance research on career crafting by answering the question of whether proactive career reflection and proactive career construction have joint or differentiated effects on employees' career outcomes. It was learned from the cross-lagged analysis that the dimensions of career crafting were indeed potent mediators in the base-level relationship between career resources and career outcomes, but not the theorised model. The nonsignificant finding may be due to the timeline utilised; hence, it is suggested that longer and shorter time frames between the predictors and mediators be examined in future research. This study also highlights the joint effect of individual and organisational career management by assessing career self-efficacy as a critical personal resource in understanding how career inducements impact employees' career reactions and outcomes.

Also, talent philosophy was presented in this study as a contextual condition that could be considered with regard to career management practices in the organisation. In assessing the possible impact of fit between individuals and the organisation's talent philosophy on the relationship between career resources and career outcomes, this study illuminates the complementary nature of career and talent management. This line of investigation is crucial because the effect of organisational policies and principles on the career development of employees in the talent-career management crossover is relatively neglected. Likewise, the role of career self-efficacy as a personal resource is underexplored. Therefore, career self-efficacy and talent philosophies were investigated as boundary conditions for reinforcing the impact of changes in career resources on employees' career crafting behaviours. While full moderation could not be operated for the theorised model, it was discovered that talent philosophy moderates the indirect relationship between career resources and career outcomes through career crafting. Also, career self-efficacy and talent philosophies were shown to significantly impact different career resources.

Overall, this thesis was a first attempt to analyse the resource process of traditional career inducement and talent management practices and, therefore, contribute to an improved understanding of the effect of dynamic career resources in the career self-management and success of key talents and employees in general. Compared to other studies on career management underpinned by the conservation of resources theory, this study attempted to test a complex model over a long period that adequately measures the dynamic and fluctuating processes posited in COR theory. Although more support was found for the linear than the dynamic processes, this study is expected to inspire existing and future career and talent management scholars to examine how and under which personal and organisational conditions employees actively engage in acquiring, investing and maintaining career resources in achieving their desired career outcomes. It is also expected to ignite vital theoretical discussions and empirical explorations regarding the applicability of COR theory to career research.

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APPENDICES

Appendix 1: Data Collection and Ethics Form

Aston Business School

Research Ethics Application

Section 1 - Project details	
Project title:	CONGRUENCE VS. INCONGRUENCE IN TALENT PHILOSOPHY: THE IMPACT ON EMPLOYEES' REACTIONS AND OUTCOMES
SREC number (Office use only):	

Section 2 - Applicant details			
Name of researcher (applicant):	ENIOLA THERESA AJIBOLA		
Status (UG student / PG student / Staff):	PGR STUDENT	Email address:	AJIBOLAE@ASTON.AC.UK
Contact address:	address redacted from open access thesis		
Contact telephone:	[phone number redacted from open access thesis		

Section 3a – For Students only			
Student ID Number:	student I.D. no. redacted		
Course:	RESEARCH DEGREE PROGRAMME	Module name and Number:	DOCTOR OF PHILOSOPHY
Supervisor / Module Leader name(s):	DR MATTHEW CARTER, DR JONATHAN CRAWSHAW, DR WLADISLAW RIVKIN		

Section 3b – For Supervisors only Please agree with the following statements by placing an X in the appropriate boxes (if completing electronically, double click on the box and select 'checked').	
The student has read the Research Ethics guidelines and the University's Research Governance document	☒
The topic merits further research	☒
The student has the skills to carry out the research	☒
The participant information sheet or leaflet is appropriate	☒
The procedures for recruitment and obtaining informed consent are appropriate	☒
Comments from Supervisor: The supervisory team have inputted into the design of the proposed methodology and will provide support throughout the data collection and analysis process as and when required. We would support the application and can confirm the merits of the proposed research.	

Section 4 - Summary of research (no more than 300 words)

The primary purpose of this research is to examine the impact of perceptions of talent philosophy on employees' career attitudes, behaviours and career success. Talent philosophy is the fundamental assumptions and beliefs that organisational decision makers hold about the nature, value and instrumentality of talent. The focus of this research is specifically on employees and line managers to determine where an incongruence or congruence in talent philosophy has a differential effect on employees' career attitudes and behaviours. Incongruence occurs when the ideal talent philosophy of the line manager as representatives of the organisation is different from that of the employees while there is congruence when line managers and employees share similar talent philosophy. By drawing on conservation of resources theory, this study will provide an insight into how congruence in talent philosophy leads to supervisor support as a form of resource. It will also examine how availability or absence of supervisor support influences employees' self-directed behaviours and attitudes toward career success thus creating further resource loss or resource gain, and also loss and gain cycles.

Simply put, this research explores line managers' and employees' opinions regarding the approaches to talent management in the organisation. Talent management is about an organisation's ability to attract, develop and retain key employees who are seen as strategic resources to the overall success of the organisation. By exploring the different opinions to talent management, we can examine the impact of these opinions on important aspects of employees' attitudes and behaviours towards their careers within the organisation.

The hypotheses to be examined in this study are as follows:

- Employees perceptions of their supervisor's support for their career explains why the disagreement between supervisors and subordinates regarding organisational talent management may lead to their estrangement from work engagement
- In turn, an employee's estrangement from work is likely to lead to more career self-serving behaviours and ultimately reduced career success
- Alternatively, employee perceptions of their supervisor's support for their career explains why the agreement between supervisor and subordinates regarding organisational talent management may lead to their greater career flexibility
- In turn, an employee's career flexibility is likely to lead to greater career initiative and ultimately greater career success

These hypotheses will examine a negative pathway through work alienation and careerism, whereby work alienation described as a sense of psychological estrangement or social isolation may induce the inclination of an employee to pursue career advancement and goals through self-serving behaviours. This is referred to as careerism or exerting careerist behaviours. A positive pathway will also be explored through career adaptability and career initiative. It is expected that the resources entrenched in career adaptability which allows for career flexibility will enable employees exert skill development and career planning which are characteristics of career initiative, a proactive career behaviour. In examining the congruency effect of talent philosophy through a dual pathway, this research will contribute to existing debates on the factors that induce negative and positive reactions in employees. It will also help organisations to recognise the distinctive role of line managers in employees' career success.

Section 5 – Research protocols (no more than 600 words)

This research will be carried out through a quantitative research methodology, particularly a longitudinal online survey distributed to employees of two financial institutions in Nigeria namely, First Bank of Nigeria Ltd and Custodian and Allied Insurance PLC. This is based on the network built from having worked in a similar financial institution for two years and having obtained an indication of interest from both organisations to participate in the study. Additionally, having a first-hand experience of how talent management is poorly done in Nigeria kindled the desire to focus on Nigeria and particularly financial institutions who are the largest employers of skilled labour. Letters of invitation will be sent to the companies to formally request their participation (**Appendix 3**). Representatives of the participating organisations will be requested to circulate a recruitment notice asking line managers who have worked in the organisation for a minimum of one year and wish to participate in the study to directly contact the primary researcher. The contact details of interested participants will be held by the primary researcher in password-protected files. Line managers will complete the survey first after which they will be asked to invite their subordinates to participate in the study by adding their email addresses. The system will then send the invite to the

subordinates and generate a code (if they complete the survey) which will be used in matching their data to that of the line managers.

The proposed sample size is 600, this is based on an estimation of having approximately 75 supervisors and 525 supervisee matched samples. The research criteria will require participants to be at least 18 years of age who are currently employed and have been with the organisation for at least one year.

Line managers and direct reports who meet the set-out criteria and have been invited to participate in the study will be contacted directly via email (**Appendix 4.1 & 4.5**) and provided with a link to the questionnaires hosted by an online survey provider (Qualtrics). Line managers' questionnaire would cover the independent variable, specifically questions on talent philosophy. Questionnaires for direct reports would cover the independent, mediating, moderating and outcome variables based on questions drawn from pre-existing scales. Line managers who have indicated an interest to participate in the study would only receive the questionnaires for line managers. Likewise, employees would only receive the questionnaires for direct reports. This is in recognition of the fact that some participants may be both line managers and direct reports. A section on respondent demographics would also be included. It should be noted that all items to be used in this study have been taken and adapted from renowned journals thus, providing assurance of the reliability and validity of the scales (see attached survey questions and references). Questionnaires for line managers will be collected at one-time point (**Appendix 1.1**) while questionnaires for direct reports comprising the same questions will be collected every three months across three-time points (**Appendix 1.2**). All responses obtained will be kept confidential and not shared with managers or the company. While there may be sample attrition during the various time points, the proposed sample size gives allowance for this attrition. Each line manager and direct report will have a unique identification number which will be used to match data from the questionnaires across the time points. The unique identification numbers and the completed questionnaires held in password-protected files will be accessed only by members of the research team.

In terms of risk assessment, there may be a few risks associated with this research. Regarding participants' confidentiality and data security, all information provided will be kept confidential, assessed by only members of the research team and kept in password-protected files. All data obtained will be coded and anonymised before they are published upon conclusion of data analysis. Additionally, participants will only be asked to answer a series of questions regarding their work and their careers. While the organisations may send communications to employees encouraging them to participate in the study, their rights to voluntary participation will be reiterated to the organisation as well as the participants. This is to eliminate all forms of coercion or perceived forms of coercion. In terms of ethical issues for consideration, particularly around participants' informed consent, withdrawal of consent and confidentiality of all information provided, these will be addressed before commencement of the study. Specifically, an information sheet detailing the nature and objectives of the study, participants' rights to withdraw from the study by four weeks following their participation before their data is fully anonymised, respect of privacy as well as the contact details of the primary researcher and associated supervisors will be shared with participants (see attached participant briefing sheet and consent form).

Section 6 – Data protection and GDPR considerations (no more than 400 words)

Responses from the questionnaires will be transferred into Mplus and a latent growth modelling analysis will be carried out on the data. Both the responses and Mplus files will be held by the primary researcher in password-protected files. Since participants will have unique identification numbers assigned by the survey technology, it would not be possible to identify specific line managers or direct reports.

The data collected will primarily be disseminated through a PhD thesis. A summary report of the research findings will be provided at the end of the project to participating organisation and to participants upon request, this report will only provide an overview of the results across the organisation. To ensure GDPR compliance, rights of participants will be respected, data collected will only be used in accordance with the data protection Act 2018, written informed consent will be obtained from the participants prior to commencing the survey and any results obtained from this study will be anonymised before it is disseminated. Also, all data collected will be retained and password-protected for one year after collection of the last wave of data, to allow for the completion of data analysis and write-up of thesis. After completion of the thesis, anonymised data will be kept for 6 years.

Section 7 – Secondary data analysis or Primary data collection

1. Will you be analysing secondary data? (for further information regarding secondary data please refer to the ABS Ethics Guidelines)	Yes ☐ No ☒
2. Will you be collecting data from new participants?	Yes ☒ No ☐

If you have answered 'yes' to question 1, then please go to section 8. If you have answered 'yes' to question 2, then please go to section 9.	
Section 8 – Secondary data analysis	
1. Name of dataset(s)	
2. Owner of dataset(s)	
3. Is the data in the public domain?	Yes ☐ No ☐
	If no, do you have the owner's permission/license? Yes ☐ No ☐*
4. Is the data anonymised?	Yes ☐ No ☐
	If no, do you plan to anonymise the data? Yes ☐ No ☐*
	If no, do you plan to use individual level data? Yes ☐ No ☐*
5. Is the data 'sensitive'?	Yes ☐* No ☐
6. Was the data originally collected for Research Purposes?	Yes ☐ No ☐
	If yes, will you be conducting analysis within the remit it was originally collected for? Yes ☐ No ☐* Was consent gained from participants for subsequent/future analysis? Yes ☐ No ☐*
	If no, briefly describe the source of the data (e.g., social media data, open government data etc.)
Please go to **Section 10.** If you have ticked *any* asterisked options, please ensure that the ethical issues associated with these are discussed in your Risk Assessment.	

Section 9 – Participant Based Research checklist

Please answer the following questions by placing an X in the appropriate boxes (if completing electronically, double click on the box and select 'checked').

Participant selection

1.	Does the research involve participants who are particularly vulnerable or unable to give informed consent? (e.g., children, those with cognitive impairment or those in unequal relationships, e.g., your own students). If yes, provide detail and copies of consent forms to be included.	Yes ☐ No ☒
2.	Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? (e.g., students at school, members of a self-help group, residents of a nursing home). (See **Appendix 3**)	Yes ☒ No ☐
3.	Will the study involve research of pregnant women / women in labour?	Yes ☐ No ☒
4.	Will the study involve children/legal minors (anyone under the age of 16 years)?	Yes ☐ No ☒
5.	Will the study involve adults (over the age of 16 years and competent to give consent)?	Yes ☒ No ☐
6.	Will the study involve research on vulnerable categories of people who may include minority groups?	Yes ☐ No ☒
7.	Will the study involve research of participants for whom English in not their first language?	Yes ☐ No ☒
8.	Does the research involve investigation of participants involved in illegal activities?	Yes ☐ No ☒
9.	Does the study involve participants aged 16 years or over who are unable to give informed consent? (e.g., people with learning disabilities; see Mental Capacity Act 2005) **All research that falls under the auspices of the MCA must be reviewed by NHS NRES (see Qn. 51)**	Yes ☐ No ☒
10.	Number of participants:	Approximately 600 participants (75 supervisors, 525 supervisee). This is based on the human resource capacity of the organisations, extant studies that have adopted a similar sample size and to give room for sample attrition across the three time points
11.	Over what time span will participants be used?	All data collected will be retained and password-protected for one year after collection of the last wave of data, to allow for the completion of data analysis and write-up of thesis. After completion of the thesis, anonymised data will be kept for 6 years.
12.	Criteria for selection of participants:	Aged 18 and above, employed with the organisation for at least one year, working with a supervisor, is a supervisor
13.	Source of participants:	Two financial institutions in Nigeria
14.	Are the participants patients? If yes, state diagnosis and clinic/responsible practitioner:	Yes ☐ No ☒
15.	Does the study have any specific exclusion criteria for participants? If yes, on what grounds? If not sure, explain why not: Participants must be aged 18 and above, employed with the organisation for at least one year, working with a supervisor and is the supervisor in the dyadic relationship	Yes ☒ No ☐
16.	Is the activity of the participant to be restricted in any way either before or after the procedure? (e.g., diet, driving). If yes, please specify duration and type(s) of restriction	Yes ☐ No ☒

17. Will payments be made to the participants? (other than reasonable expenses and compensation for time) If yes, provide details of how much, for what purpose and how it will be paid: Participants will be incentivised through a voluntary inclusion in a random draw of 3 gift vouchers with the equivalent worth of £150 each in Naira (since the data will be obtained from Nigeria). Participants who wish to enter the prize draw will enter their email address in a box provided at the end of the survey, they will also be informed of the implication of doing this, which is giving up their right to anonymity. Participants to be randomly selected will be those who complete the questionnaires across all three time points, winners will be drawn one month after the completion of data collection	Yes ☒ No ☐
Risk Management - Consent	
18. Does the research involve members of the public in a research capacity (participant capacity)?	Yes ☒ No ☐
a. Will it be necessary for participants / participating organisations and companies to take part in the study without their knowledge and consent at the time? (e.g., covert observation of people in non-public places)	Yes ☐ No ☒
b. Are the participants fully informed about the procedures to be used and the purpose of the research? If yes, provide copies of participant briefing documents	Yes ☒ No ☐
c. Will the consent of the participants / participating organisations and companies be obtained? If yes, provide copies of consent forms. If no, explain why it is not possible to gain the participant's consent and the justification for undertaking the research without it: See attached	Yes ☒ No ☐
d. Is it clear to the participants / participating organisations and companies that they can withdraw from the study at any time? If yes, provide copies of documents where this is communicated to participants	Yes ☒ No ☐
e. Will participants / participating organisations and companies be fully debriefed after the research is completed? If yes, provide copies of participant debriefing documents (not compulsory)	Yes ☐ No ☒
f. Have arrangements been made to ensure that material obtained from or about a participant remain confidential?	Yes ☒ No ☐
19. Will the research involve respondents to the internet or other visual / vocal methods where respondents may be identified?	Yes ☐ No ☒
20. Will research involve the sharing of data or confidential information beyond the initial consent given? If yes, provide details:	Yes ☐ No ☒
21. What measures have been made to ensure that any participants who are believed to be under some form of duress (e.g., staff, students, prisoners, members of the armed forces, employees of companies sponsoring research) are not coerced into participating: Prior to commencing the study, informed consent will be obtained from employees who wish to participate in the study. Additionally, participants will be reminded of their rights to withdraw before, during or after the study. An autogenerated withdrawal link will be included in the survey for participants who wish to withdraw from the study. Since this is a study based on a dyadic relationship between line managers and direct report, participation of either parties in the relationship will be kept anonymous and independent of each other. Each line manager and direct report will have a unique number which will be used to match data from the questionnaires across the time points. The researcher will not generate/match these codes and so will not be able to use them to identify any respondents. The survey software pseudonymises the data through a serial number, which is given to everyone who signs up for the study. The data between supervisors and employees, and employees across time points is matched through this serial number. For participants who withdraw from the study, a notification will be received in the survey software, the associated code will then be expunged from the data set. All responses obtained will be kept confidential and not shared with the	

	company. In terms of data analysis, the codes generated by the system for participants will be used during the process of data analysis as participants' data will already by anonymised by the codes.
Risk Management - Data collection	
22. Does the research involve use of a questionnaire or similar research instrument or measure? If yes, include copies or indicate if the questionnaire has not yet been developed yet. See attached	Yes ☒ No ☐
23. Does the research involve use of written or computerised tests? If yes, include screen shots or indicate if the tests have not yet been developed yet.	Yes ☐ No ☒
24. Does the research involve use of interviews? If yes, include copies of interview questions or indicate if the questions have not yet been developed yet.	Yes ☐ No ☒
25. Does the research involve diaries? If yes, include a copy of the diary record form or indicate if the diary record has not yet been developed yet.	Yes ☐ No ☒
26. Does the research involve participant observation?	Yes ☐ No ☒
27. Does the research involve audio-recording interviewees or events (observation)?	Yes ☐ No ☒
28. Does the research involve video-recording (e.g., CCTV, video etc) interviewees or events (observation)?	Yes ☐ No ☒
29. Will any people being observed and/or recorded not be informed that the observation and/or recording are taking place?	Yes ☐ No ☒
30. Does the research involve the deliberate deception of the participant?	Yes ☐ No ☒
31. Does the research involve the collection of confidential data and/or is there a risk that any participant could be identified from the data collected?	Yes ☐ No ☒
32. Will the study involve discussion of sensitive topics? (e.g., sexual activity, drug use)	Yes ☐ No ☒
33. Are drugs, placebos or other substances (e.g., food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?	Yes ☐ No ☒
34. Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?	Yes ☐ No ☒
35. Will the study involve prolonged or repetitive testing?	Yes ☒ No ☐

Section 10 – Risk Assessment

Please answer the following questions by placing an X in the appropriate boxes (if completing electronically, double click on the box and select 'checked').

36. What do you consider to be the main ethical issues which may arise from the proposed research and give full details of any hazards, pain, discomfort, distress, inconvenience or use of deception which could affect the health, safety or well-being of any participant, or any other person who might be affected by the research

The ethical issues which may arise would be the time and effort required of participants to complete the survey. This is because the same participants will be required to complete the survey comprising of the same measures at 3 different time points, which will take approximately 15-20 minutes to complete. Another issue may be one of having somewhere private to complete the survey as participants may not want their responses to be seen by colleagues or managers. Since there is no requirement to complete the surveys at work and the survey is mobile-friendly, this can be done wherever participants feel most comfortable All other issues around the confidential nature of information provided and participants rights to withdraw will be communicated via the consent form. There is no anticipation of any major risks or hazards as all items to be used in this study are unintrusive

37. What levels of risk are associated with these hazards?

Low

38. How do you propose to control the risks associated with these hazards?

To minimise strain on participants, all items of the survey have been carefully selected which would take no longer than 15-20 minutes to complete. Although data for direct reports will be collected at 3 different time points, the survey will be distributed every three months thus, allowing enough recovery time before another survey is distributed. Also, managers will only be required to complete the survey at one time point.

Furthermore, the online survey will provide an information sheet on the first page which details the nature of the study, participants' rights to confidentiality and withdrawal from the survey. After reading the information sheet, participants will need to click 'next' to move to the next page, i.e., the consent form page. Here, participants will receive a statement about our commitment to GDPR which they will be invited to read and check the responses if they agree to statements and wish to participate in the study. It is only after this is completed that interested participants can continue on into the study.

With regards to guarantee of anonymity, participants will not be and cannot be identified as they are not required to leave any personal details (e.g., names, contacts) about themselves, except the participants who wish to participate in the prize draw. However, all information provided will be held by the primary researcher in password-protected files.

39. What criteria have you used to determine whether the risks are acceptable?

The criteria are based on the 'Code of Human Research Ethics' as put forward by the British Psychological Society (BPS), which believes that all research should aim to maximise benefits and minimise harm. As demonstrated by the current research, its benefit is to contribute to a more nuanced understanding of the mechanisms behind employees' positive and negative reactions to talent philosophy, while simultaneously ensuring that no harm is done onto participants during the investigation of its hypotheses.

40. Is there any precedent for this research? If so, please give details with references if possible. Yes ☐ No ☒

41. What measures have been made for participants who might be vulnerable or might not adequately understand verbal explanations or written information given in English or have special communication needs (e.g., translation, use of interpreters, use of chaperones, presence of guardians, researchers from same gender as participants etc.):

Data will be collected from current employees of two financial institutions in Nigeria, where the official language is English. All participants will already be fluent or have sufficient control of the English language in order to be employed in the organisation

42. Is there the potential for adverse risks to the researchers themselves? (e.g., in international research: locally employed research assistants) Yes ☐ No ☒

43. Having reflected upon the ethical implications of the project and/or its potential findings, do you believe that the research could be a matter of public controversy or have a negative impact on the reputation/standing of Aston University?	Yes ☐ No ☒
44. How will the results be made available to participants and communities from which they are drawn? Result will be made available through the PhD thesis and the subsequent academic publication. Also, a summary of the research will be provided to the participating organisations	
Risk management – Location	
45. Location of research (enter details of all sites where research will take place and specify the elements of research to be undertaken at each site): Data will be collected electronically from current employees of two financial organisations in Nigeria, through questionnaires using an online survey tool. Hence, no fieldwork would require visits to locations other than Aston University	
46. Will the research take place outside of the UK? If yes, provide details and include copies of insurance documents: Data will be obtained electronically from current employees of two financial institutions in Nigeria	Yes ☒ No ☐
Confidentiality and Data Protection	
47. What measures have been put in place to ensure security and confidentiality of personal data and video/audio recordings? All participant data shall be safely stored in a secure document store, electronically on a secure password-protected computer server and secure cloud using Aston's Box storage device in order to ensure security and confidentiality	
48. Where and by whom will the data be analysed? All data will be analysed via Mplus by the primary researcher	
49. Who will have access to the data generated by the study? The primary researcher will have access to the data as well as the supervisory team for checking and as part of the assessment process	
50. When will personal data and any video/audio recordings be destroyed following completion of the research? All data will be retained for 6 years before being destroyed	
Peer review	
How has the quality of the research been assessed? The quality of the research has been assessed by the supervisory team and the qualifying report examiners in terms of: (1) its engagement with the current scientific literature, (2) hypotheses appropriateness, (3) its research methodology and design, (4) participants and sample size, (5) its handling of ethical issues and (6) its proper use of citations and reference to appropriate scholars.	
NHS related research	
51. Will the research need to be reviewed by NHS NRES Committee or an external Ethics Committee? (if yes, please give brief details as an annex)	Yes ☐ No ☒
52. Will the study involve recruitment of patients or staff through the NHS or the use of NHS data premises and/or equipment?	Yes ☐ No ☒
Insurance	
53. What arrangements have been made to provide indemnity and/or compensation in the event of a claim by, or on behalf of, participants for negligent and/or for non-negligent harm? Please note that you should not undertake to provide any form of indemnity or insurance cover without first referring the matter to the Deputy Director of Finance for her/his consideration. As this research is being conducted in my capacity as a research student in Aston University, this will be covered by the university. However, the research will only utilise scales that have been strongly validated and published in top ranking peer-reviewed journals. Measures will also be put in	

	place to minimise the already low likelihood of harm that may result in compensation. First, data collection will only be initiated once the participants have provided their formal consent for the research by reading the information sheet and signing the consent form. This will also detail their right to withdraw from the study at any time and without giving reason.

Section 11 – Declaration by Applicant

The information contained above is, to the best of my knowledge and belief, accurate. I have read the University's Code of Practice for Ethical Standards for Research and accept responsibility for the conduct of the procedures set out in this application in accordance with the guidelines, and any other condition laid down by the University's Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

I and my co-investigators or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise.

Signed:	signature redacted from open access thesis	Date:	19/11/2020

Section 12 – Signatories

To be completed by the Principal Investigator / Lead Researcher / Supervisor / Module Leader / Research Group Convenor / Research Ethics Committee Chair as applicable

Principal Investigator or Lead Researcher (where appropriate):	signature redacted	Date: 19/11/20
Supervisor or Module Leader (where appropriate):	Matthew Carter	Date: 27/11/20
Research Group Convenor (or nominee):		Date:
ABS Research Ethics Committee (Chair or nominee):		Date:

Appendix 2: Ethics Approval Update

Tuesday, July 18, 2023 at 11:49:14 British Summer Time

Subject: Re: Research Ethics Application Approval - Update
Date: Monday, 7 February 2022 at 23:08:05 Greenwich Mean Time
From: Paul Jones
To: Eniola Ajibola (Research Student)
CC: AARM

Hi Eniola,

That is fine to proceed based on the fact you are switching to prolific and that all other details remain the same.

Sorry for the delay. Good luck with the research.

Many thanks,

Paul

Paul Jones BSc (Hons), MSc, PG Dip, PG Cert, Assoc CIPD, FHEA
Senior Research Manager, College of Business and Social Science

Birmingham, B4 7ET, UK
0121 204 4443
aston.ac.uk

From: Eniola Ajibola (Research Student) <ajibolae@aston.ac.uk>
Date: Tuesday, 1 February 2022 at 12:13
To: Paul Jones <p.jones5@aston.ac.uk>
Subject: Re: Research Ethics Application Approval - Update

Good afternoon,

I hope you're having a great day.

I am following up on my previous email about ethics approval for my revised study and, if needed, whether this process can be fast-tracked. Do you have any updates on this?

Best regards,
Eniola

From: Eniola Ajibola (Research Student)
Sent: 26 January 2022 10:53
To: Paul Jones <p.jones5@aston.ac.uk>
Subject: Research Ethics Application Approval - Update

Hello Paul,

I hope you're having a lovely day.

Due to data collection challenges, I am no longer collecting samples from an organisation and would now be using a paid, prolific sample. Ostensibly, the variables remain the same. Can you advise whether I need to seek ethics approval for this? If so, can it be fast-tracked because it is just a minor change?

Best regards,
Eniola

Appendix 3: Participants' Questionnaire

Study Information

You are invited to take part in this research study conducted as part of Doctorate research at Aston University, Birmingham, UK. Before you decide if you would like to participate, take time to read the following information carefully and, if you wish, discuss it with others such as your family, friends, or colleagues.

What is the purpose of the study?

The research explores individuals' approaches to career self-management within and outside the organisation. It aims to identify different clusters of social resources that have the most and least effect on employees'. Career management is a vocational behaviour that individuals engage in to shape their career directions throughout their work life.

Why have I been chosen?

You are being invited to participate in this study as an employee who is a direct report and a (potential) beneficiary of support from your organisation. We would like to hear your opinions regarding career management at individual and organisational levels.

What will happen to me if I take part?

You will be required to complete six surveys in total - one survey every month for six (6) months. The first survey takes approximately ten (10) minutes to complete, the second and third surveys take six (6) minutes to complete, and the final three surveys take ten (10) minutes to complete. All information will be kept confidential, and you are not required to provide any sensitive information about yourself.

Do I have to take part?

No. It is up to you to decide whether you wish to participate. If you choose to participate, you will be asked to indicate your consent on the next page and your unique Prolific ID when prompted. You can also withdraw from the study at any given time without giving a reason.

Will my taking part in this study be kept confidential?

Yes. A code will be attached to all the data you provide to maintain confidentiality. Analysis of your data will be undertaken using codes. The data we collect will be stored electronically on a secure encrypted password-protected computer server and secure cloud storage device.

To ensure the quality of the research, Aston University may need to access your data to check that the data has been recorded accurately. If this is required, your data will be treated as confidential by the individual accessing your data.

What are the possible benefits of taking part?

You will be paid £1.25 for completing the first survey, £0.75 for the second and third surveys and £1.25 for the final three surveys. You will also get a bonus of £7 for completing all six (6) surveys. Importantly, you have the opportunity through this study to identify ways to achieve growth and success in your careers. The information gained from this study will provide a robust understanding of the reasons behind employees' reactions to different career management initiatives in the organisation. It will also help employers identify ways to enhance employees' career success.

What are the possible risks and burdens of taking part?

One of the possible burdens of taking part in the study is the time and effort required to complete the surveys. This is because the surveys will be distributed at six different time points. However, there is a four-week gap between each time point. Additionally, all information will be kept confidential.

What will happen to the results of the study?

The results of this study may be published in scientific journals and/or presented at conferences. If the study results are published, your identity will remain confidential. An aggregate summary of the study results without reference to any participant will be made available when the study has been completed. The researcher will ask if you would like to receive a copy.

Who has reviewed the study?

The study was given a favourable ethical opinion by the Aston University Research Ethics Committee.

What if I have a concern about my participation in the study?

If you have any concerns about your participation in this study, please speak to the research team, and we will do our best to answer your questions. Contact details can be found at the end of this information sheet.

Suppose the research team cannot address your concerns, or you wish to make a complaint about how the study is being conducted. In that case, you should contact the Aston University Research Integrity Office at research_governance@aston.ac.uk or telephone +44(0)121 204 3000.

Research Team

Primary Researcher: Eniola Ajibola (ajibolae@aston.ac.uk)
Associate Supervisors: Dr Matthew Carter (m.r.carter@aston.ac.uk)
Dr Jonathan Crawshaw (j.r.crawshaw2@aston.ac.uk)
Dr Wladislaw Rivkin (rivkinw@tcd.ie)

Consent

Please indicate your consent to the following questions:

- [ ] I confirm that I have read and understood the information sheet for the study and have had the opportunity to ask questions
- [ ] I understand that my participation is voluntary and that I am free to withdraw at anytime, without giving reason
- [ ] I agree to my personal data and data relating to me collected during the study being processed as described in the Information Sheet
- [ ] I agree to my anonymised data being used by research teams for future research
- [ ] I agree to take part in this study

Prolific ID

Please indicate your unique Prolific ID, in the box provided	

What is your age (to the nearest year)?	

What is your gender?

- Male
- Female
- Non-binary
- Transgender
- Other
- Prefer not to say

Is English your first language?

- Yes
- No

What is your nationality?

What is the highest level of formal education you have attained?

- High School (e.g., A levels or equivalent)
- Foundation Degree (e.g., HND)
- Bachelor's or Undergraduate Degree (e.g., B.A, BSc)
- Master's or Postgraduate Degree (M.A, MSc, MBA)
- Doctorate (e.g., PhD, DBA)

What is your marital status?

- Single (never married)
- Married
- Widowed
- Divorced
- Separated

How long have you been working in this job-role (to the nearest year)?

How long have you worked in this organisation (to the nearest year)?

What employment status is most applicable to you?

- Permanent
- Contract
- Temporary

What are your contracted hours per week?

What type of organisation do you work for?

- Public Sector
- Private Sector
- Non-profit
- Other

What is the size of your organisation?

- Micro (1-10 employees)
- Small (10-50 employees)
- Medium (50-250 employees)
- Large (more than 250 employees)

What is the most suitable industry your organisation belongs to?

- Agriculture, Forestry & Fishing
- Mining & Quarrying
- Manufacturing
- Electricity, Gas Steam & Air Conditioning Supply
- Water Supply & Sewerage
- Construction
- Wholesale & Retail
- Transportation & Storage
- Accommodation & Food Service Activities
- Information & Communication
- Financial & Insurance Activities
- Professional, Scientific & Technical Activities
- Public Administration & Defence
- Education
- Human Health & Social Work Activities
- Arts, Entertainment & Recreation
- Other Service Activities
- Activities of Households as Employers
- Activities of Extraterritorial Organisations & Bodies
- Real Estate Activities
- Administrative & Support Service Activities

What is the most suitable option that describes your position in the organisation?

- Employee with no leadership/supervisory responsibility
- Team Leader
- Line Manager/Supervisor
- Senior Management
- Managing Director/CEO

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I have significant autonomy in determining how i do my job					
I can decide on my own how to go about doing my work					
I have considerable opportunity for independence and freedom in how i do my job					

To what extent do the following statements apply to your job?	Very little	Seldom	Sometimes	Often	Very much
I receive tasks that are extraordinary and particulary difficult					
I often have to make very complicated decisions in my work					
I use all my knowledge and skills in my work					
I learn new things in my work					

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My supervisor takes the time to learn about my career goals and aspirations					
My supervisor cares about whether or not I achieve my career goals					
My supervisor makes sure I get the credit when I accomplish something substantial on the job					
My supervisor keeps me informed about different career opportunities for me in the organisation					
My supervisor gives me helpful feedback about my performance					
My supervisor gives me helpful advice about improving my performance when I need it					
My supervisor supports my attempts to acquire additional training or education to further my career					
My supervisor provides assignments that gives me the opportunity to develop and strengthen new skills					
My supervisor assigns me special projects that increase my visibility in the organisation					

To what extent do you expect to experience these organisational interventions?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Training to help develop my career					
Learning things I need to know to get on in this organisation					
Receiving a personal development plan					
Work that will develop my skills for the future					
Impartial advice when I need it					
Introduction to people at work who are prepared to help me develop my career					
A mentor to help my career development					

To what extent do these statements reflect your position?	not at all my position	not really my position	neutral	somewhat my position	completely my position
A talent is a special individual that can make a significant difference to a company					
A talent is not something everyone possesses, but just the lucky few					
It is a logical choice that developmental assignments and resources are only invested in the most promising talent					
Everyone has a certain talent					
Everyone is gifted in one way or another, but we need to offer the right context to develop those gifts into talents					
Everybody has to discover his or her own talent so that we can assign him or her to the right job					

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The kind of person a talent is, is something very basic about them and it can't be changed very much					
Everyone has a certain kind of talent and there is not much that can be done to really change that					
Talents can do things differently, but the important parts of who they are can't really be changed					

To what extent do you believe that talent is something people are born with?

0% 100%

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
When I make plans for my career, I am confident I can make them work					
If I can't do a job the first time, I keep trying until I can					
When I set important career goals for myself, I rarely achieve them					
I avoid facing career difficulties					
When I have something unpleasant to do that will help my career, I stick with it until I am finished					
When I decide to do something about my career, I go right to work on it					
When trying to learn something new on my job, I soon give up if I am not initially successful					
I avoid trying to learn new things that look too difficult for me					
I feel insecure about my ability to get where I want in this company					
I rely on myself to accomplish my career goals					
I do not seem capable of dealing with most problems that come up in my career					

To what extent do you agree with the following statements?	Never	Rarely	Sometimes	Very often	Always
I spend time reflecting on my passions in my work and career					
I deliberately think about what I would like to achieve in my career					
I assess for myself what I really value in my career					
I explore the possibilities available to me to continue developing myself					

To what extent do you agree with the following statements?	Never	Rarely	Sometimes	Very Often	Always
I make sure that significant persons in my work are up to date about my performance and results					
I deliberately show others what I am good at					
I strengthen my career goals and make sure they remain up to date					
If I need to make strong impression on others to achieve my own goals, I make sure I clearly show them what I am capable of					

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am satisfied with the success I have achieved in my career					
I am satisfied with the progress I have made toward meeting my overall career goals					
I am satisfied with the progress I have made toward meeting my goals for income					
I am satisfied with the progress I have made toward meeting my goals for advancement					
I am satisfied with the progress I have made toward meeting my goals for the development of new skills					

Using numbers (e.g., 2, 4)

How many promotions (every increase in hierarchical level) have you experienced since joining your current employer?	
How many promotions (every increase in hierarchical level) have you experienced in your overall career?	

Using whole numbers (e.g., 31,840)

What is your most recently received gross annual salary in GBP?	

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
If I could get another profession different from this one and paying the same amount, I would take it					
I definitely want a career for myself in my current area					
If I could do it all over again, I would not choose to work in this profession					
If I had all the money I need without working, I would probably still contunue in this profession					
I like this vocation too well to give it up					
This is the ideal vocation for a work life					
I am disappointed that I ever entered this profession					

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am optimistic that I would find another job with this employer, if I looked for one					
I will easily find another job with this employer instead of my present job					
I could easily switch to another job with this employer, if I wanted to					
I am confident that I could quickly get a similar job with this employer					

To what extent do you agree with the following statements?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I often think of leaving this organisation					
I intend to look for a new job within the next year					
If I could choose again, I would not work for this organisation					

To what extent do you believe your employer is obliged to provide the following?	Not at all	Very little	Sometimes	Very much	To a very great extent
Fair pay compared to employees doing similar work in other organisations					
Fringe benefits that are fair compared to what employees doing similar work in other organisations get					
Fair pay for the responsibilites I have in my job					
Pay increases to maintain my standard of living					
The necessary training to do my job well					
Up to date training and development					
Support when I want to learn new skills					
Interesting work					
Opportunity to be involved in decisions that affect me					
Freedom to do my job well					
Long term job security					
Good career prospects					

To what extent do these statements reflect the position of your company?	not at all the position of my company	not really the position of my company	neutral	somewhat the position of my company	completely the position of my company
A talent is a special individual that can make a significant difference to a company					
A talent is not something everyone possesses, but just the lucky few					
It is a logical choice that developmental assignments and resources are only invested in the most promising talent					
Everyone has a certain talent					
Everyone is gifted in one way or another, but we need to offer the right context to develop those gifts into talents					
Everybody has to discover his or her own talent so that we can assign him or her to the right job					

To what extent do these statements agree with the position of your company?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The kind of person a talent is, is something very basic about them and it can't be changed very much					
Everyone has a certain kind of talent and there is not much that can be done to really change that					
Talents can do things differently, but the important parts of who they are can't really be changed					

Appendix 4: Full Correlation Matrix Table

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. Age	35.62	9.48	1																										
2. Gender	1.51	0.54	-.218**	1																									
3. Education level	2.82	1.19	-0.09	0.075	1																								
4. Tenure	1.51	0.54	.548**	-.117*	-.260**	1																							
5. Organisation type	5.19	5.52	0.015	-0.08	0.061	-0.077	1																						
6. Organisation size	1.68	0.66	0.03	0.081	0.067	.116*	-.240**	1																					
7. Position	1.73	0.98	.120*	-0.02	0.039	0.076	.210**	-.204**	1																				
8. Job autonomy (T2)	3.49	1.29	0.056	0.044	0.007	0.06	.149**	-0.08	0.09	1																			
9. Job autonomy (T3)	3.09	1.69	.108*	0.051	-0.054	.148**	.140**	-0.077	0.051	.634**	1																		
10. Job autonomy (T4)	2.75	1.86	0.077	0.011	-0.052	0.097	.130*	-0.058	0.043	.511**	.782**	1																	
11. Job autonomy (T5)	2.53	1.94	0.084	0.00	-0.013	0.069	.113*	-0.078	0.053	.476**	.693**	.850**	1																
12. Job autonomy (T6)	2.17	1.98	.133*	0.009	0.002	.112*	.147**	-0.028	0.05	.397**	.567**	.716**	.821**	1															
13. Supervisor support (T2)	2.79	1.20	-0.025	0.015	0.057	0.02	.113*	-0.001	0.066	.680**	.437**	.364**	.301**	.207**	1														
14. Supervisor support (T3)	2.48	1.46	0.023	0.042	-0.036	0.092	0.084	-0.033	0.05	.507**	.828**	.672**	.603**	.500**	.601**	1													
15. Supervisor support (T4)	2.20	1.57	0.013	0.018	-0.025	0.036	0.08	-0.04	0.076	.412**	.672**	.858**	.745**	.630**	.490**	.769**	1												
16. Supervisor support (T5)	1.98	1.60	0.038	-0.03	-0.019	0.049	0.071	-0.059	0.06	.378**	.574**	.732**	.863**	.721**	.416**	.669**	.817**	1											
17. Supervisor support (T6)	1.71	1.63	0.097	0.012	0.032	0.075	.136*	-0.002	0.057	.331**	.503**	.654**	.747**	.896**	.319**	.575**	.697**	.789**	1										
18. OCM (T2)	2.65	1.21	-0.052	0.021	0.02	0.022	0.034	0.03	0.053	.600**	.380**	.307**	.258**	.186**	.845**	.538**	.421**	.373**	.283**	1									
19. OCM (T3)	2.40	1.43	-0.007	0.081	-0.06	0.084	0.042	-0.021	0.021	.485**	.802**	.666**	.587**	.470**	.558**	.923**	.737**	.626**	.516**	.579**	1								
20. OCM (T4)	2.10	1.53	-0.049	0.048	-0.084	0.047	0.043	-0.022	0.028	.364**	.633**	.812**	.702**	.569**	.470**	.730**	.921**	.777**	.622**	.463**	.757**	1							
21. OCM (T5)	1.91	1.57	0.001	0.015	-0.034	-0.002	0.085	-0.08	0.026	.362**	.572**	.726**	.857**	.688**	.381**	.643**	.776**	.922**	.736**	.384**	.652**	.792**	1						
22. OCM (T6)	1.61	1.55	0.08	0.012	0.00	0.06	.124*	-0.01	0.069	.315**	.503**	.646**	.744**	.879**	.299**	.563**	.676**	.769**	.944**	.304**	.546**	.648**	.762**	1					
23. Career reflection (T2)	2.88	1.19	-.161**	0.01	0.082	-.166**	.117*	-0.037	0.10	.644**	.433**	.385**	.306**	.199**	.623**	.463**	.409**	.318**	.232**	.619**	.475**	.422**	.339**	.255**	1				
24. Career reflection (T3)	2.57	1.51	-0.034	0.033	-0.035	-0.001	0.072	-0.038	0.074	.442**	.766**	.644**	.560**	.441**	.437**	.802**	.658**	.570**	.446**	.429**	.799**	.677**	.590**	.468**	.639**	1			
25. Career reflection (T4)	2.28	1.63	-0.002	0.012	-0.065	-0.013	0.073	-0.012	0.061	.355**	.637**	.821**	.692**	.587**	.354**	.647**	.834**	.692**	.576**	.345**	.652**	.828**	.702**	.589**	.524**	.768**	1		
26. Career reflection (T5)	2.04	1.64	-0.025	0.008	-0.049	-0.039	0.075	-0.073	0.043	.346**	.567**	.725**	.850**	.698**	.289**	.577**	.703**	.638**	.694**	.281**	.565**	.705**	.859**	.707**	.435**	.673**	.786**	1	
27. Career reflection (T6)	1.77	1.67	0.023	0.02	-0.02	-0.009	.127*	-0.015	0.041	.284**	.473**	.620**	.720**	.857**	.225**	.499**	.605**	.709**	.859**	.238**	.493**	.594**	.714**	.886**	.329**	.540**	.664**	.794**	1
28. Career construction (T2)	2.64	1.15	-.124*	0.004	-0.01	-0.03	0.083	-0.019	.138**	.600**	.428**	.363**	.296**	.222**	.658**	.503**	.404**	.314**	.270**	.655**	.489**	.406**	.330**	.277**	.750**	.533**	.421**	.374**	.299**
29. Career construction (T3)	2.36	1.41	-0.028	0.053	-0.096	0.052	0.068	-0.043	.139**	.430**	.761**	.612**	.529**	.393**	.464**	.819**	.646**	.528**	.409**	.477**	.813**	.645**	.547**	.422**	.543**	.857**	.680**	.598**	.467**
30. Career construction (T4)	2.08	1.53	-0.035	0.057	-.111*	0.024	0.067	-0.063	0.079	.348**	.613**	.794**	.667**	.561**	.351**	.645**	.834**	.662**	.577**	.349**	.642**	.822**	.677**	.577**	.447**	.678**	.864**	.726**	.618**
21. Career construction (T5)	1.92	1.57	0.01	0.011	-0.088	0.011	0.07	-0.061	0.073	.344**	.549**	.705**	.834**	.682**	.314**	.585**	.717**	.849**	.695**	.306**	.568**	.697**	.852**	.705**	.370**	.604**	.725**	.904**	.750**
32. Career construction (T6)	1.65	1.56	0.08	0.023	-0.03	0.078	.118*	-0.024	0.085	.298**	.479**	.624**	.725**	.860**	.225**	.498**	.624**	.705**	.879**	.227**	.470**	.585**	.687**	.886**	.275**	.483**	.611**	.741**	.906**
33. Career satisfaction (T6)	1.88	1.76	.123*	0.024	-0.026	.112*	0.081	-0.01	0.076	.325**	.502**	.644**	.752**	.889**	.259**	.507**	.643**	.727**	.890**	.251**	.490**	.603**	.696**	.891**	.208**	.436**	.589**	.706**	.855**
34. Career commitment (T6)	1.78	1.68	.120*	0.034	0.001	0.101	.108*	-0.045	0.032	.320**	.494**	.644**	.742**	.880**	.250**	.492**	.630**	.716**	.878**	.246**	.477**	.592**	.698**	.873**	.197**	.422**	.572**	.706**	.846**
35. Internal employability (T6)	1.96	1.85	0.104	0.02	-0.034	0.095	0.054	0.048	0.03	.305**	.490**	.648**	.741**	.874**	.236**	.482**	.630**	.702**	.872**	.208**	.468**	.587**	.684**	.863**	.201**	.439**	.589**	.688**	.835**
36. Turnover intentions (T6)	1.58	1.61	0.061	-0.03	-0.034	0.011	0.093	-0.019	0.024	.173**	.365**	.501**	.594**	.728**	0.052	.310**	.432**	.540**	.643**	0.03	.293**	.426**	.513**	.649**	.195**	.416**	.546**	.638**	.763**
37. Psychological contract fulfilment (T6)	1.80	1.63	.131*	0.018	-0.024	.109*	.124*	-0.018	0.067	.334**	.524**	.678**	.777**	.923**	.255**	.526**	.663**	.747**	.925**	.236**	.502**	.620**	.724**	.934**	.210**	.456**	.599**	.718**	.880**
38. Career self-efficacy (T2)	3.31	1.12	.148**	-0.01	-0.052	.109*	0.063	0.031	0.101	.773**	.586**	.480**	.427**	.368**	.668**	.565**	.465**	.390**	.353**	.653**	.541**	.445**	.400**	.353**	.695**	.530**	.460**	.405**	.338**
39. Individual inclusive/exclusive talent (T4)	1.53	1.11	0.041	0.005	-0.067	0.059	0.036	-0.061	-0.03	.271**	.584**	.748**	.638**	.539**	.219**	.511**	.683**	.583**	.482**	.171**	.517**	.684**	.579**	.475**	.251**	.517**	.677**	.606**	.491**
40. Individual stable/developable talent (T4)	2.13	1.50	0.092	0.029	-0.099	.139**	0.039	-0.046	0.042	.335**	.606**	.789**	.680**	.590**	.302**	.570**	.761**	.669**	.584**	.274**	.576**	.757**	.644**	.572**	.356**	.603**	.761**	.667**	.572**
41. Organisation's inclusive/exclusive talent (T4)	1.70	1.22	0.065	0.026	-0.075	0.092	0.049	-0.068	0.00	.307**	.600**	.753**	.683**	.570**	.253**	.510**	.679**	.624**	.527**	.198**	.520**	.679**	.618**	.510**	.269**	.540**	.688**	.651**	.557**
42. Organisation's stable/developable talent (T4)	2.16	1.52	0.094	0.029	-0.096	.109*	0.078	-0.055	0.008	.329**	.614**	.790**	.701**	.613**	.273**	.542**	.733**	.659**	.595**	.257**	.556**	.733**	.643**	.582**	.321**	.593**	.758**	.689**	.599**

	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
28. Career construction (T2)	1														
29. Career construction (T3)	.623**	1													
30. Career construction (T4)	.518**	.737**	1												
21. Career construction (T5)	.429**	.636**	.774**	1											
32. Career construction (T6)	.338**	.489**	.657**	.782**	1										
33. Career satisfaction (T6)	.248**	.421**	.575**	.709**	.867**	1									
34. Career commitment (T6)	.234**	.408**	.580**	.708**	.871**	.918**	1								
35. Internal employability (T6)	.240**	.398**	.555**	.665**	.843**	.886**	.859**	1							
36. Turnover intentions (T6)	.161**	.319**	.476**	.581**	.700**	.639**	.593**	.684**	1						
37. Psychological contract fulfilment (T6)	.247**	.425**	.586**	.708**	.901**	.938**	.929**	.913**	.678**	1					
38. Career self-efficacy (T2)	.666**	.537**	.435**	.393**	.342**	.378**	.365**	.363**	.278**	.376**	1				
39. Individual inclusive/exclusive talent (T4)	.243**	.502**	.672**	.577**	.494**	.491**	.514**	.509**	.551**	.525**	.357**	1			
40. Individual stable/developable talent (T4)	.386**	.573**	.756**	.639**	.557**	.582**	.572**	.569**	.531**	.606**	.414**	.754**	1		
41. Organisation's inclusive/exclusive talent (T4)	.259**	.493**	.667**	.623**	.550**	.535**	.534**	.546**	.592**	.549**	.367**	.857**	.730**	1	
42. Organisation's stable/developable talent (T4)	.349**	.570**	.752**	.668**	.588**	.609**	.607**	.601**	.561**	.626**	.401**	.740**	.919**	.771**	1

Appendix 5: Cross-Lagged Moderation Analysis for Career Self-Efficacy

Table 5.1. Summary of conditional indirect effect on career satisfaction

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Career Self-Efficacy*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Satisfaction	-0.0054	-0.0390/0.0280	0.0015	-0.0107
Autonomy → Construction → Satisfaction	-0.0079	-0.0372/0.0161	0.0126	-0.0053
Support → Reflection → Satisfaction	0.0038	-0.0386/0.0460	0.0397	0.0482
Support → Construction → Satisfaction	-0.0077	-0.0433/0.0211	0.0484	0.0311
OCM → Reflection → Satisfaction	-0.0009	-0.0456/0.0427	0.0417	0.0397
OCM → Construction → Satisfaction	-0.0084	-0.0460/0.0207	0.0517	0.0327

Table 5.2. Summary of conditional indirect effect on career commitment

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Career Self-Efficacy*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Commitment	-0.0039	-0.0323/0.0198	0.0011	-0.0077
Autonomy → Construction → Commitment	-0.0100	-0.0445/0.0196	0.0158	-0.0066
Support → Reflection → Commitment	0.0028	-0.0284/0.0352	0.0292	0.0355
Support → Construction → Commitment	-0.0096	-0.0505/0.0260	0.0603	0.0387
OCM → Reflection → Commitment	-0.0007	-0.0351/0.0310	0.0306	0.0291
OCM → Construction → Commitment	-0.0105	-0.0528/0.0253	0.0643	0.0407

Table 5.3. Summary of conditional indirect effect on internal employability

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Career Self-Efficacy*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Employability	-0.0069	-0.0519/0.0333	0.0019	-0.0136
Autonomy → Construction → Employability	-0.0057	-0.0298/0.0121	0.0091	-0.0038

Support → Reflection → Employability	0.0048	-0.0481/0.0571	0.0503	0.0612
Support → Construction → Employability	-0.0057	-0.0379/0.0166	0.0358	0.0230
OCM → Reflection → Employability	-0.0012	-0.0561/0.0554	0.0533	0.0506
OCM → Construction → Employability	-0.0064	-0.0375/0.0167	0.0393	0.0249

Table 5.4. Summary of conditional indirect effect on turnover intentions

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Career Self-Efficacy*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Turnover	-0.0079	-0.0575/0.0356	0.0021	-0.0156
Autonomy → Construction → Turnover	-0.0006	-0.0153/0.0112	0.0010	-0.0004
Support → Reflection → Turnover	0.0056	-0.0540/0.0616	0.0579	0.0704
Support → Construction → Turnover	-0.0013	-0.0187/0.0106	0.0081	0.0052
OCM → Reflection → Turnover	-0.0013	-0.0673/0.0564	0.0604	0.0574
OCM → Construction → Turnover	-0.0016	-0.0209/0.0112	0.0100	0.0063

Table 5.5. Summary of conditional indirect effect on psychological contract fulfilment

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Career Self-Efficacy*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Psy. Contract	-0.0050	-0.0383/0.0245	0.0041	-0.0099
Autonomy → Construction → Psy. Contract	-0.0076	-0.0349/0.0146	0.0120	-0.0050
Support → Reflection → Psy. Contract	0.0036	-0.0349/0.0416	0.0372	0.0452
Support → Construction → Psy. Contract	-0.0074	-0.0410/0.0197	0.0466	0.0299
OCM → Reflection → Psy. Contract	-0.0009	-0.0408/0.0377	0.0393	0.0374
OCM → Construction → Psy. Contract	-0.0082	-0.0445/0.0193	0.0502	0.0318

Appendix 6: Cross-Lagged Moderation Analysis for Inclusive Talent Philosophy

Table 6.1. Summary of conditional indirect effect on career satisfaction

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Inclusive Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Satisfaction	-0.0084	-0.1111/0.0841	0.1646	0.1540
Autonomy → Construction → Satisfaction	0.0152	-0.0777/0.0983	0.1012	0.1204
Support → Reflection → Satisfaction	0.0314	-0.0629/0.1764	0.1544	0.1939
Support → Construction → Satisfaction	0.0139	-0.0817/0.1286	0.1171	0.1345
OCM → Reflection → Satisfaction	0.0347	-0.0756/0.1740	0.1486	0.1923
OCM → Construction → Satisfaction	-0.0165	-0.1123/0.0667	0.1388	0.1180

Table 6.2. Summary of conditional indirect effect on career commitment

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Inclusive Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Commitment	-0.0061	-0.0844/0.0572	0.1187	0.1111
Autonomy → Construction → Commitment	0.0191	-0.0833/0.1098	0.1271	0.1512
Support → Reflection → Commitment	0.0231	-0.0509/0.1318	0.1135	0.1426
Support → Construction → Commitment	0.0173	-0.0925/0.1551	0.1458	0.1675
OCM → Reflection → Commitment	0.0255	-0.0591/0.1360	0.1091	0.1412
OCM → Construction → Commitment	-0.0205	-0.1275/0.0877	0.1725	0.1467

Table 6.3. Summary of conditional indirect effect on internal employability

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Inclusive Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Employability	-0.0108	-0.1309/0.1098	0.2102	0.1967
Autonomy → Construction → Employability	0.0110	-0.0545/0.0829	0.0728	0.0866

Support → Reflection → Employability	0.0398	-0.0796/0.2194	0.1958	0.2459
Support → Construction → Employability	0.0102	-0.0672/0.1084	0.0865	0.0994
OCM → Reflection → Employability	0.0443	-0.0923/0.2204	0.1897	0.2454
OCM → Construction → Employability	-0.0125	-0.0945/0.0531	0.1054	0.0896

Table 6.4. Summary of conditional indirect effect on turnover intentions

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Inclusive Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Turnover	-0.0123	-0.1506/0.1204	0.2399	0.2244
Autonomy → Construction → Turnover	0.0012	-0.0326/0.0417	0.0079	0.0094
Support → Reflection → Turnover	0.0458	-0.0893/0.2628	0.2252	0.2829
Support → Construction → Turnover	0.0023	-0.0457/0.0475	0.0195	0.0224
OCM → Reflection → Turnover	0.0502	-0.0995/0.2501	0.2152	0.2785
OCM → Construction → Turnover	-0.0032	-0.0531/0.0280	0.0267	0.0227

Table 6.5. Summary of conditional indirect effect on psychological contract fulfilment

Indirect Relationship	*Index of mod-med.*	*Confidence Interval*	*Inclusive Talent*	
		Lower/ Upper	*Low Level*	*High Level*
Autonomy → Reflection → Psy. Contract	-0.0078	-0.1009/0.0796	0.1530	0.1431
Autonomy → Construction → Psy. Contract	0.0145	-0.0700/0.0910	0.0965	0.1148
Support → Reflection → Psy. Contract	0.0294	-0.0598/0.1622	0.1448	0.1819
Support → Construction → Psy. Contract	0.0133	-0.0718/0.1316	0.1127	0.1295
OCM → Reflection → Psy. Contract	0.0327	-0.0690/0.1640	0.1401	0.1812
OCM → Construction → Psy. Contract	-0.0160	-0.1040/0.0736	0.1349	0.1147

Appendix 7: Results of Mediation Analysis for Latent Growth Modeling

The results presented in Tables 7.1 to 7.5 revealed that mediation was not established for the relationship between trajectories in each career resource and career outcomes through proactive career reflection and career construction. However, the findings show support for the direct relationship between the initial level of supervisor support and all the outcomes, the base level of OCM and the outcomes of career satisfaction, career commitment and psychological contract fulfilment and for the direct association between the initial level job autonomy for turnover intentions and psychological contract fulfilment. However, since both career reflection and career construction did not mediate the career resources-career outcomes relationship, hypotheses 3 to 7 were not supported.

Table 7.1. Scale results of mediation analysis for career satisfaction

Hyp	*Structural Paths*	*Direct Effect*	*Specific Indirect Effect*		*Outcome*
		β (SE)	*β (SE)*	*95% CI*	
3ai	autonomy (ic) → reflection → satisfaction	0.372 (0.238)	0.021 (0.103)	[-0.025, 0.067]	
	autonomy (sp) → reflection → satisfaction	-0.412 (3.342)	0.013 (1.594)	[-0.280, 0.917]	not supported
3aii	autonomy (ic) → construction → satisfaction	0.358 (0.200)	0.031 (0.088)	[-0.036, 0.102]	
	autonomy (sp) → construction → satisfaction	-0.153 (2.801)	-0.150 (1.288)	[-1.042, 0.302]	not supported
3bi	support (ic) → reflection → satisfaction	0.566 (0.115)***	0.021 (0.042)	[-0.041, 0.066]	
	support (sp) → reflection → satisfaction	0.636 (1.141)	0.016 (0.417)	[-0.090, 0.129]	not supported
3bii	support (ic) → construction → satisfaction	0.532 (0.106)***	0.055 (0.039)	[-0.024, 0.125]	
	support (sp) → construction → satisfaction	0.577 (1.035)	0.056 (0.175)	[-0.071, 0.250]	not supported
3ci	ocm (ic) → reflection → satisfaction	0.616 (0.205)**	0.006 (0.073)	[-0.108, 0.071]	
	ocm (sp) → reflection → satisfaction	0.396 (2.592)	0.011 (0.735)	[-0.412, 0.512]	not supported
3cii	ocm (ic) → construction → satisfaction	0.573 (0.209)**	0.046 (0.106)	[-0.069, 0.126]	
	ocm (sp) → construction → satisfaction	0.405 (2.449)	0.002 (1.012)	[-0.352, 0.365]	not supported

ic = intercept; sp = slope; SE = standard error; *p<0.05. **p<0.01, ***p<0.001; Bootstrap sample size = 4,000

Table 7.2. Scale results of mediation analysis for career commitment

Hyp	*Structural Paths*	*Direct Effect*	*Specific Indirect Effect*		*Outcome*
		β (SE)	*β (SE)*	*95% CI*	
4ai	autonomy (ic) → reflection → commitment	0.316 (0.175)	0.023 (0.043)	[-0.021, 0.075]	
	autonomy (sp) → reflection → commitment	0.082 (2.342)	0.015 (0.833)	[-0.377, 0.546]	not supported
4aii	autonomy (ic) → construction → commitment	0.304 (0.190)	0.032 (0.099)	[-0.032, 0.104]	
	autonomy (sp) → construction → commitment	0.314 (3.336)	-0.135 (2.400)	[-1.158, 0.201]	not supported

4bi	support (ic) → reflection → commitment	0.466 (0.105)***	0.031 (0.033)	[-0.020, 0.083]	
	support (sp) → reflection → commitment	0.456 (1.154)	0.024 (0.394)	[-0.074, 0.197]	not supported
4bii	support (ic) → construction → commitment	0.430 (0.100)***	0.068 (0.040)	[0.001, 0.146]	
	support (sp) → construction → commitment	0.393 (0.888)	0.068 (0.229)	[-0.050, 0.374]	not supported
4ci	ocm (ic) → reflection → commitment	0.515 (0.193)**	0.023 (0.079)	[-0.064, 0.102]	
	ocm (sp) → reflection → commitment	0.076 (2.521)	0.040 (1.100)	[-0.130, 0.801]	not supported
4cii	ocm (ic) → construction → commitment	0.477 (0.215)*	0.057 (0.130)	[-0.038, 0.141]	
	ocm (sp) → construction → commitment	0.111 (2.583)	0.007 (1.323)	[-0.274, 0.474]	not supported

ic = intercept; sp = slope; SE = standard error; *p<0.05. **p<0.01, ***p<0.001; Bootstrap sample size = 4,000

Table 7.3. Scale results of mediation analysis for internal employability

Hyp	*Structural Paths*	*Direct Effect*	*Specific Indirect Effect*		*Outcome*
		β (SE)	*β (SE)*	*95% CI*	
5ai	autonomy (ic) → reflection → employability	0.284 (0.291)	0.013 (0.072)	[-0.018, 0.078]	
	autonomy (sp) → reflection → employability	1.530 (3.716)	0.009 (1.110)	[-0.706, 0.166]	not supported
5aii	autonomy (ic) → construction → employability	0.285 (0.297)	0.012 (0.101)	[-0.018, 0.098]	
	autonomy (sp) → construction → employability	1.583 (3.616)	-0.048 (1.290)	[-1.287, 0.068]	not supported
5bi	support (ic) → reflection → employability	0.471 (0.129)***	0.006 (0.033)	[-0.052, 0.069]	
	support (sp) → reflection → employability	0.999 (1.216)	0.005 (0.237)	[-0.143, 0.082]	not supported
5bii	support (ic) → construction → employability	0.508 (0.125)***	-0.032 (0.046)	[-0.126, 0.044]	
	support (sp) → construction → employability	1.015 (0.986)	-0.032 (0.509)	[-0.272, 0.059]	not supported
5ci	ocm (ic) → reflection → employability	0.488 (0.290)	-0.015 (0.131)	[-0.159, 0.080]	
	ocm (sp) → reflection → employability	1.704 (4.267)	-0.029 (1.879)	[-2.302, 0.119]	not supported
5cii	ocm (ic) → construction → employability	0.505 (0.288)	-0.029 (0.171)	[-0.155, 0.148]	
	ocm (sp) → construction → employability	1.607 (4.060)	0.002 (1.671)	[-1.689, 0.151]	not supported

ic = intercept; sp = slope; SE = standard error; *p<0.05. **p<0.01, ***p<0.001; Bootstrap sample size = 4,000

Table 7.4. Scale results of mediation analysis for turnover intentions

Hyp	*Structural Paths*	*Direct Effect*	*Specific Indirect Effect*		*Outcome*
		β (SE)	*β (SE)*	*95% CI*	
6ai	autonomy (ic) → reflection → turnover	-0.557 (0.207)**	0.019 (0.071)	[-0.018, 0.087]	
	autonomy (sp) → reflection → turnover	-0.854 (3.314)	0.013 (1.480)	[-0.337, 0.601]	not supported
6aii	autonomy (ic) → construction → turnover	-0.531 (0.278)	-0.010 (0.169)	[-0.071, 0.017]	

	autonomy (sp) → construction → turnover	-0.920 (3.603)	0.044 (1.945)	[-0.118, 0.872]	not supported
6bi	support (ic) → reflection → turnover	-0.600 (0.177)**	0.072 (0.077)	[0.007, 0.182]	
	support (sp) → reflection → turnover	-0.651 (1.840)	0.053 (0.598)	[-0.300, 0.495]	not supported
6bii	support (ic) → construction → turnover	-0.561 (0.157)***	0.027 (0.070)	[-0.067, 0.136]	
	support (sp) → construction → turnover	-0.636 (1.629)	0.028 (0.812)	[-0.170, 0.271]	not supported
6ci	ocm (ic) → reflection → turnover	-0.620 (0.340)	0.097 (0.206)	[-0.029, 0.271]	
	ocm (sp) → reflection → turnover	1.060 (4.168)	0.194 (1.590)	[-1.667, 0.641]	not supported
6cii	ocm (ic) → construction → turnover	-0.571 (0.323)	0.050 (0.142)	[-0.062, 0.274]	
	ocm (sp) → construction → turnover	1.097 (4.283)	-0.008 (1.531)	[-2.057, 0.158]	not supported

ic = intercept; sp = slope; SE = standard error; *p<0.05. **p<0.01, ***p<0.001; Bootstrap sample size = 4,000

Table 7.5. Scale results of mediation analysis for psychological contract fulfilment

Hyp	*Structural Paths*	*Direct Effect*	*Specific Indirect Effect*		*Outcome*
		β (SE)	*β (SE)*	*95% CI*	
7ai	autonomy (ic) → reflection → psy. contract fulfil	0.366 (0.128)**	0.010 (0.049)	[-0.013, 0.041]	
	autonomy (sp) → reflection → psy. contract fulfil	0.634 (1.734)	0.006 (0.638)	[-0.287, 0.230]	not supported
7aii	autonomy (ic) → construction → psy. contract fulfil	0.359 (0.143)*	0.016 (0.075)	[-0.019, 0.069]	
	autonomy (sp) → construction → psy. contract fulfil	0.754 (1.868)	-0.071 (0.934)	[-0.987, 0.094]	not supported
7bi	support (ic) → reflection → psy. contract fulfil	0.517 (0.103)***	-0.002 (0.036)	[-0.043, 0.033]	
	support (sp) → reflection → psy. contract fulfil	0.859 (1.059)	-0.002 (0.302)	[-0.147, 0.052]	not supported
7bii	support (ic) → construction → psy. contract fulfil	0.524 (0.093)***	-0.009 (0.028)	[-0.067, 0.042]	
	support (sp) → construction → psy. contract fulfil	0.849 (0.826)	-0.009 (0.180)	[-0.164, 0.067]	not supported
7ci	ocm (ic) → reflection → psy. contract fulfil	0.574 (0.130)***	-0.042 (0.077)	[-0.174, 0.030]	
	ocm (sp) → reflection → psy. contract fulfil	1.297 (2.512)	-0.208 (1.630)	[-2.146, 0.208]	not supported
7cii	ocm (ic) → construction → psy. contract fulfil	0.534 (0.200)**	-0.011 (0.144)	[-0.090, 0.074]	
	ocm (sp) → construction → psy. contract fulfil	1.155 (2.805)	0.003 (1.909)	[-0.718, 0.146]	not supported

ic = intercept; sp = slope; SE = standard error; *p<0.05. **p<0.01, ***p<0.001; Bootstrap sample size = 4,000