




Psychological career pre-occupation and social connectedness in Ghanaian education staff's career management

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Purpose: This study examines the interplay of psychosocial career pre-occupation, social connectedness, and organisational commitment in higher education and offers insights for academia and practitioners. It also explores the impact of gender, job level, and the moderating effect of psychosocial career pre-occupation on employees' commitment in this sector.

Design/methodology/approach: A purposeful sample of 288 senior academic and administrative staff, mostly married males aged 31–40 years, completed the Psychosocial Career Pre-occupation Scale (PCOS), Workplace Friendship Scale (WFS), and Organisational Commitment Scale (OCS).

Findings/results: Significant relationships were found among psychosocial career pre-occupation, social connectedness, and organisational commitment in higher education. Moderated analysis revealed predictive roles of gender, job level, and psychosocial career pre-occupation on organisational commitment, and illuminating sector dynamics.

Practical implications: For human resource managers and practitioners in Ghana's public higher education, this study offers insights to boost workforce commitment and engagement, which is vital for national progress.

Originality/value: By validating essential elements of career self-management practices, this research extends career construction theory, enriching understanding and fostering professionals' careers in higher education. It contributes to practical applications and scholarly knowledge by providing a deepening insight into organisational dynamics in this sector.

Keywords: psychosocial career pre-occupation; social connectedness; organisational commitment; career construction theory; Higher Education; career self-management.

Introduction

In the ever-evolving landscape of higher education institutions (HEIs), it is increasingly imperative to address the shifting dynamics within the contemporary world of career management. Numerous experts in the field assert that the global workforce is undergoing a profound transformation, moving away from the conventional work environment of the 21st century towards a digitally centred work sphere (Robinson et al., 2020; Shmatko & Volkova, 2020; Tømte et al., 2019; Van Der Heijden et al., 2020). This transition is particularly pertinent to HEIs, which must adapt to these changes to support the career development and management of their employees effectively.

The digital work realm, characterised as the 'totality of the components constituting the context of daily encounters facilitated by or embedded in digital technologies' (Recker et al., 2021, p. 4), has brought about unprecedented challenges. The global workforce has grappled with issues such as a rapid surge in unemployment and the prevalence of full-time remote work, which became even more pronounced because of the coronavirus disease 2019 (COVID-19) pandemic. Higher educational institutions have been no exception to these shifts, as they have seen an increasing number of employees transitioning from on-site to remote work. Consequently, employees within these institutions are confronted with uncertainties regarding the implications of these changes for their career development and management (Bowen, 2020; Dingel & Neiman, 2020; Ferrari et al., 2021; Prasad et al., 2020). Of particular concern is the impact on career advancement opportunities for remote workers in the higher education sector.

Within this evolving landscape, Guirguis et al. (2020) stress that personal growth, skill acquisition and staying updated with advancements are not solely the responsibility of employing organisations. This assertion aligns with the view of Lice and Sloka (2019), who emphasise that individuals must proactively navigate their own career trajectories, adapting not only to immediate goals but also to the ever-changing dynamics of the employment market. Moreover, Ehlers (2020) underscores the role of counselling in evaluating job prospects and guiding individuals through career changes by establishing a clear sense of values over time. Expanding upon this idea, Hirschi et al. (2022) promote the concept of career self-management as a systematic progression involving intentional strategising of one's professional pursuits across their lifetime. This approach aims to cultivate personal satisfaction, enhance occupational awareness, facilitate growth and ensure financial stability.

In the context of HEIs, it is vital to acknowledge that entities and individuals equipped with robust career management programmes can effectively align with their organisational objectives (Ferdiana et al., 2023; Moon & Choi, 2017). Significantly, the exploration of career self-management is anticipated to furnish a framework for shaping the formulation of career management policies and strategies within these institutions, spanning beyond Ghana to broader contexts. This systematic approach is key to addressing employees' career concerns and ensuring that HEIs remain adaptive in supporting their workforce.

Furthermore, by integrating the elements of social connectedness and psychosocial career engagement, the management of educational institutions can design socially oriented initiatives aimed at facilitating career management. This approach fosters commitment among employees, which in turn translates into the achievement of fundamental organisational aims and objectives (Ferdiana et al., 2023; Moon & Choi, 2017). In the context of HEIs, where faculty, administrators and staff play integral roles in fulfilling the mission and goals of the institution, this integrated approach becomes even more crucial for success.

Literature perspectives

Psychosocial career pre-occupations

As outlined by Coetzee (2018), individual psychosocial career pre-occupations involve a combination of psychosocial elements (such as career self-concept or identity) and social factors (such as the interface between career and social roles) within a particular timeframe. Within this framework, these pre-occupations are acknowledged as motivators for proactive career attitudes and behaviours, seeking to harmonise the ongoing development of personal identity with the demands of the career environment. Coetzee (2016a; 2016b) conducted an extensive review of the literature and suggested that career pre-occupations might dominate individuals' career experiences during challenging economic conditions and an uncertain labour market. Numerous scholars have raised

apprehensions regarding individuals' career pre-occupations, which include ongoing learning and growth, acquiring new skills, balancing work and personal life, flexibility, career progression, adaptation to change, taking initiative in one's career, self-awareness, and building stronger interpersonal and societal relationships (Coetzee et al., 2022; Coetzee & Pauw, 2013; Kwao, 2023; Post et al., 2013; Savickas, 2005).

Research by Marx (2016) indicates that the demands of an individual's career journey rely heavily on adaptive behaviours, which is crucial for navigating developmental life cycles that undergo constant transformation over time. The fluid nature of the work environment necessitates adaptability to newly established roles and adjusting to evolving work conditions. Career pre-occupation focusses on addressing career development needs at specific points in an employee's working life (Coetzee, 2019; Coetzee et al., 2022). The psychological disposition of employees significantly influences their career pre-occupation, playing a pivotal role in enhancing career satisfaction and overall well-being, and ultimately impacting an organisation's level of work-related commitment (Coetzee & Takawira, 2019).

According to De Guzman and Choi (2013), the psychosocial focus on career pre-occupation is closely linked to individuals' management of their career paths. Likewise, empirical studies performed by Kaski and Kinnunen (2021) and Potgieter et al. (2019) demonstrate a positive relationship between psychosocial career pre-occupations and proactive career self-management attributes, which encompass problem-solving-oriented career behaviours. As the existing literature suggests, career self-management significantly aids individuals in approaching job transitions, preparing adequately for new roles, and developing capabilities within an unpredictable environment (Zhou et al., 2016). With multiple career transitions in a volatile work landscape, career self-management reinforces the fundamental importance of career development and the ability to adapt available resources effectively.

In addition, Akkermans et al. (2013) and Rodrigues et al. (2015) argue that individuals must cultivate personal career agency and embrace adaptive career behaviours to navigate frequent career shifts. Effective career self-management behaviours become the means to this end. Coetzee et al. (2022) emphasise the significance of proactive career self-management attitudes for achieving career success. Drawing from these patterns, Coetzee (2014, 2015) delineated three facets of psychosocial career pre-occupations:

Pre-occupation career establishment – career establishment pre-occupation involves fostering avenues for self-expression, personal advancement and development, along with assimilating into a community or team to progress within one's chosen contemporary organisation.

Pre-occupations career adaptation – career adaptation pre-occupation encompasses the recognition of diverse contexts

that may entail fluctuations in one's career path and the adjustment of competencies (including knowledge, interests, talents, skills, capabilities and experience) to align with specific opportunities in the labour market.

Pre-occupations work-life adjustment – work-life adjustment pre-occupation pertains to the capacity of employees to establish a balance between their personal lives, including familial responsibilities, and their work commitments to mitigate conflicts arising from multiple roles (Van Dyk et al., 2013). This involves efforts such as workload management, settling into a routine and striving for increased harmony between an individual's professional and personal spheres (Direnzo et al., 2015; Yadav & Saxena, 2015).

Organisations that support their employees in creating personal growth strategies and nurturing their career progression within the company may reap substantial benefits. This approach ensures that employees grasp the fundamentals of proactive career development (Baruch et al., 2019; Coetzee et al., 2023; Potgieter et al., 2019). However, concerns arise over the potential loss of valuable talent because of the lack of accessible career plans that aid individuals in advancing their careers while maintaining a work-life balance (Sonnenstuhl & Trice, 2018). Work-life balance pertains to the perception of effectively juggling personal life and work commitments, seamlessly fulfilling the diverse roles inherent in both spheres without conflict (Dockel et al., 2006). Strategies for work-life balance might encompass flexible work arrangements, family leave policies, granting time off for family matters and offering childcare support (Dockel et al., 2006).

Studies underscore a growing trend that emphasises active individual engagement in steering their own career journeys within their particular work environment (Kaur & Kaushik, 2020). Spurk et al. (2019) assert that equipping individuals with the skills to adapt to dynamic work contexts hinges on proactive planning and application of career self-management behaviours, pivotal for achieving career satisfaction and well-being.

Social connectedness

Social connectedness is rooted in the subjective experiences of individuals within a workplace, deriving from their interactions and information exchanges in the professional environment (LeDoux & Hofmann, 2018). Morgan et al. (2021) posited that employees sharing similar cultural backgrounds share social insights, influencing their career progression within the workplace. Social connectedness involves experiencing a feeling of belonging and companionship among peers, colleagues, family or community members within the workplace environment over time (Bowles & Scull, 2019; O'Rourke et al., 2018).

Brown and Leite (2022) contend that social connectedness holds significant relevance in the current landscape, particularly concerning career management for individuals

initiating their engagement in the contemporary work world. The research underscores that social connectedness is intertwined with workplace friendships, a multifaceted aspect of employees' professional lives (Brown & Leite, 2022). In contemporary times, interpersonal relationships within the workplace serve as significant predictors of career progression (Huo et al., 2020; Wang & Seifert, 2017).

Furthermore, studies delineate social interaction or connection from two key viewpoints: individual-level social connectedness and broader collective-level social connectedness (Anggraini et al., 2019; Kelley et al., 2019). In addition, empirical research demonstrates that workplace connections often form among individuals with similar attributes (Bailey et al., 2018). Networking emerges as a pivotal element facilitating social connectedness in the workplace. Work-related networks foster cohesion, influencing both economic and social aspects such as social mobility and job searching (Muller & Peres, 2019). Effective networking underscores mutual influence, heightened connectedness and reduced employee redundancy, thus significantly influencing organisational decisions (Muller & Peres, 2019).

Yu-Ping et al. (2020) emphasise the resemblance between social connectedness and workplace friendships, treating these concepts interchangeably within the scope of this study. Workplace friendship and a sense of social connection play a vital role in employees' well-being, enhancing their performance within the chosen organisation and aligning with proactive career self-management (Brown & Leite, 2022). Proactive career self-management manifests in proactive career behaviours, demonstrating individuals' deliberate control over their career paths (Hirschi et al., 2022). These proactive behaviours stem from a conscious drive to control one's career, satisfying the fundamental human need for autonomy (Van Den Broeck et al., 2016; Wilhelm & Hirschi, 2019). Furthermore, engaging in proactive behaviour fosters sensations of personal achievement and success in one's career (Smale et al., 2018).

While the desire for close workplace relationships is intrinsic, questions persist regarding whether workplace friendships yield more positive or negative outcomes (Khaleel et al., 2016; Uno et al., 2021). Employees' perceptions of the availability and prevalence of workplace friendships hold importance for their overall perceptions of the employment relationship (Nielsen et al., 2000). Opportunity for friendship refers to an individual's perceived likelihood of forming connections, communicating and collaborating with colleagues in the organisation. Furthermore, friendship prevalence pertains to the degree of strong friendships at work, characterised by trust, confidence and a genuine inclination to engage both professionally and socially beyond the workplace (Nielsen et al., 2000).

Organisational commitment

Over the past couple of decades, there has been an extensive examination of organisational commitment. Organisational

commitment represents a psychological connection that binds employees to their respective organisations (Allen & Meyer, 1990). Its significance lies in its central role within human resource management strategies and career management practices. Commitment serves as a crucial factor in the relationship between employees and their organisations, fostering a sense of belonging that links individuals to a specific workplace. In general, organisational commitment fosters a desire to actively engage with the organisation, a propensity to remain, sustained membership, presence, and potentially improved performance (Aldiat, 2023; Ferreira, 2012).

Deery and Jago's research (2015) highlighted the significance of organisations crafting policies and practices that assist employees in managing the balance between their professional and personal lives. By providing support for employees' personal lives outside of work and skilfully managing the psychological contract, organisations can foster increased employee commitment (Kwao, 2023). Notably, studies affirm that organisations with work-life balance policies experience heightened organisational commitment and markedly reduced intentions among employees to leave (Deery & Jago, 2015; Dockel et al., 2006; Ferreira, et al., 2024; Nei et al., 2015).

Understanding organisational commitment is crucial in gauging the depth of an employee's loyalty to a specific organisation (Al-Jabari & Ghazzawi, 2019; Hanaysha & Majid, 2018; Lumley et al., 2011). Research suggests that a strong level of organisational commitment is associated with lower turnover rates and decreased intentions to seek alternative employment (Coetzee & Oosthuizen, 2017; Fleig-Palmer & Rather, 2015; Kumari & Priya, 2017). Thus, organisations must adopt strategies that cultivate a profound sense of commitment among their workforce. Enhancing individual commitment levels can lead to positive behavioural outcomes and indirectly improve employee satisfaction (Lim et al., 2017; Mathieu et al., 2016; Tuna et al., 2016). Factors such as perceptions of job performance, alignment with organisational values and aspirations, and overall job satisfaction significantly influence an employee's decision to either stay or leave a particular organisation (Hanaysha & Majid, 2018). Consequently, an individual's commitment may be influenced by their emotions, values and career objectives within their current role.

The moderating effect of socio-demographic variables

Research has demonstrated that socio-demographic attributes exert a moderating influence on psychosocial career pre-occupations, social connectedness (workplace friendships) and employees' commitment to the organisation (Bester et al., 2019; Coetzee & Bester, 2021; Deas & Coetzee, 2020; Kwao, 2023). Previous studies have reached conclusions suggesting that socio-demographic variables such as age, gender, ethnicity, job level and length of employment can influence psychosocial career pre-occupations and social connectedness among workplace employees (Deas, 2017; Kwao, 2023; Randmann, 2013). Randmann (2013) further revealed that an individual's

job level within the organisation could significantly influence the intensity of psychosocial career pre-occupations and, subsequently, their commitment level. There has been limited research exploring how socio-demographic variables moderate the connections between psychosocial career pre-occupations and other factors, such as individual and organisational commitment (Rafiee et al., 2015).

Moreover, Bester (2018) asserts that demographic differences among individuals constitute crucial predictors of organisational commitment, playing a pivotal role in an organisation's success and performance enhancement. Organisational commitment shares a positive correlation with factors such as age, job level and managerial experience (Rafiee et al., 2015). Consequently, taking into account factors such as employees' age, ethnicity, employment background, managerial experience and education can reinforce organisational commitment, improve employees' perceptions of psychosocial career pre-occupations, nurture organisational trust and encourage effective career self-management practices (Alomran et al., 2024; Kwao, 2023; Peltokorpi et al., 2015; Rafiee et al., 2015).

The study proposed that there would be a statistically significant positive correlation between socio-demographic characteristics (including age, gender, marital status and job level), psychosocial career pre-occupations, social connectedness and organisational commitment, collectively influencing career self-management. In addition, it was anticipated that socio-demographic attributes (such as age, gender, marital status and job level), psychosocial career pre-occupations, social connectedness and organisational commitment would significantly and positively predict career self-management. Lastly, the study predicted that individuals from diverse age, gender, marital status and job level groups would demonstrate notable differences in their psychosocial career pre-occupations, social connectedness and organisational commitment.

Research problem, design and methods

Research problem

To address the intricacies of career-related phenomena in the dynamic context of higher educational institutions in Ghana, this study pursues a multifaceted research problem. At its core, this research aims to examine the interplay of psychosocial career pre-occupation, social connectedness and organisational commitment among the staff within the unique environment of a higher educational institution in Ghana (Kwao, 2023).

The study does not merely seek to identify surface-level correlations but, rather, aims to delve into the underpinnings of these constructs. It seeks to explore the significant influence of psychosocial career pre-occupations on employees' sense of social connectedness and, consequently, how these factors together shape their organisational commitment.

Moreover, recognising the factors that may shape these relationships, the study seeks to determine the moderating role of socio-demographic variables such as age, gender, marital status and job level. By doing so, it strives to unpick the influences that might enhance or inhibit the connections between psychosocial career pre-occupation, social connectedness and organisational commitment, thereby contributing to a more contextually rich understanding of the subject matter.

In essence, this research problem exceeds the conventional boundaries of studying career-related constructs in isolation. It aspires to shed light on the unique dynamics within higher educational institutions in Ghana. This approach not only enriches the academic discourse but also has the potential to inform strategic decisions and interventions in these institutions to optimise employee social connectedness and organisational commitment.

Participants and procedure

The study population comprised all full-time senior staff, including both academic and non-academic (administrative) personnel, of a HEI in Ghana. A purposive sample of the entire population ($n = 1651$) was selected to help the researcher collect the maximum number of usable questionnaires. Participants who responded to the questionnaire consisted of 288 ($N = 288$) academic and administrative staff employed at an HEI in Ghana. The sample predominantly comprised married (72.2%) males (50.7%) aged between 31 and 40 years (56.6%) and employed as principal administrative assistants (34.4%). A quantitative research methodology was employed, with electronic questionnaires distributed to participants, who subsequently completed them.

Measuring instruments

The *Psychosocial Career Pre-Occupations Scale* (PCPS) is a self-rated measure consisting of 23 items and three subscales to measure psychosocial career pre-occupation: *career establishment pre-occupation* (13 items), *career adaptation pre-occupation* (5 items) and *career work-life adjustment pre-occupation* (5 items). A 5-point Likert-type scale (1 = not concerned; 5 = extremely concerned) was used for the participants' responses to each of the 24 items. Coetzee (2014) conducted exploratory and confirmatory factor analyses, confirming the construct and structural validity, as well as the internal consistency reliability of the PCPS in the South African context. The internal consistency reliability coefficient for the overall PCPS scale was 0.92, reflecting the general psychosocial career pre-occupation, while coefficients for the three subscales ranged between 0.70 (work-life adjustment) and 0.92 (career establishment).

The *Workplace Friendship Scale* (WFS) is a self-rated, multifactorial measure consisting of 12 items divided into two subscales: *friendship opportunity* (6 items) and *friendship prevalence* (6 items). A 5-point Likert-type scale (1 = strongly disagree; 5 = strongly agree) is used for the participants' responses to each of the 13 items. Exploratory and confirmatory

factor analysis by Nielsen et al. (2000) confirmed the construct and structural validity and internal consistency reliability of the WFS in the South African context. The internal consistency reliability coefficient for scores from the overall measure was 0.86 and the internal consistency reliability coefficients for scores from the two subscales ranged between 0.82 (friendship opportunity) and 0.85 (friendship prevalence).

The *Organisational Commitment Scale* (OCS) is a self-rated, multifactorial measure consisting of 23 items divided into three subscales: *affective commitment* (8 items), *normative commitment* (6 items) and *continuance commitment* (9 items). A 5-point Likert-type scale (1 = strongly disagree; 5 = strongly agree) is used for the participants' responses to each of the 23 items. Exploratory and confirmatory factor analysis by Meyer and Allen (1997) confirmed the construct and structural validity, and internal consistency reliability of the OCS. The internal consistency reliability coefficient for scores from the overall measure was 0.80 and the internal consistency reliability coefficients for scores from the three subscales ranged between 0.78 (normative commitment) and 0.87 (affective commitment).

Procedure

The researchers obtained ethical approval for the study's execution from the research institution's management (Ethics certificate reference: ERC Ref#: 2021_HRM_005). Prior to data collection, participants were granted informed consent for their data to be used for research objectives. Participants were explicitly informed about the voluntary nature of their participation in the study. An electronic questionnaire link was dispatched to participants via e-mail. The gathered responses were documented in an Excel spreadsheet and subsequently transformed into an SPSS file for the purpose of data analysis. Participants were assured of the strict confidentiality upheld regarding the study's data.

Data analysis

Correlational analysis was undertaken to ascertain the strength and direction of the relationships between the various constructs under investigation. Correlation, a bivariate examination, measures the intensity and alignment of variables (Benitez et al., 2020; Hair et al., 2019). For this study, a significance level of $r \geq 0.30$ (indicating a small effect) at $p \leq 0.05$ was employed to determine the practical relevance of correlation coefficients. As described by Hayes (2018, 2022), determining if a relationship between predictor and outcome variables is affected by a moderator involves conducting moderated regression analysis. Hayes (2022) and Hu and Jiang (2018) emphasise that this technique assists researchers in understanding the conditional context in which variables influence one another, thereby facilitating the examination of hypotheses regarding conditional effects. Consequently, following Hayes's perspective (2018), moderated regression analysis tests inquire into the situations in which specific effects, such as moderation or interaction effects, emerge.

TABLE 1: Means, standard deviations, skewness and kurtosis (psychosocial career pre-occupation scale, workplace friendship scale and organisational commitment scale).

Construct	Cronbach's alpha	Mean	Standard deviation	Skewness	Kurtosis
PCPS					
Career establishment	0.92	4.09	0.86	-0.82	0.31
Career adaptation	0.84	3.17	1.10	-0.05	-0.56
Work-life adjustment	0.70	3.66	1.01	-0.40	-0.42
Total PCPS	0.92	3.80	0.96	-0.56	-0.04
WFS					
Friendship opportunity	0.82	4.00	0.88	-1.00	1.41
Friendship prevalence	0.85	3.22	1.11	-0.35	-0.34
Total WFS	0.86	3.61	1.00	-0.68	0.54
OCS					
Affective commitment	0.87	3.45	1.10	-0.51	-0.35
Normative commitment	0.78	3.18	1.18	-0.19	-0.81
Continuance commitment	0.86	3.20	1.15	-0.27	-0.64
Total OCS	0.80	3.28	1.14	-0.32	-0.60

PCPS, Psychosocial Career Pre-occupation Scale; WFS, Workplace Friendship Scale; OCS, Organisational Commitment Scale.

Ethical considerations

Ethical approval to conduct this study was obtained from the University of South Africa, Human Resource Manager, Ethics Review Committee with reference number 2021_HRM_005.

Results

Descriptive statistics: Means and standard deviations

Table 1 presents the means, standard deviations, skewness and kurtosis of the variables. The participants obtained the highest mean scores on PCPS career establishment ($M = 4.09$; standard deviation [SD] = 0.86), on WFS friendship opportunity ($M = 4.00$, $SD = 0.88$) and on OCS affective commitment ($M = 3.45$; $SD = 1.10$).

Bivariate correlations between PCPS, WFS and OCS

Table 2 illustrates numerous noteworthy associations between PCPS, WFS and OCS. Career establishment pre-occupations subscale indicated significant positive correlations with the two subscales of the PSCS, with friendship opportunity ($r = 0.36$; moderate practical effect; $p < 0.01$), friendship prevalence (not significant) and with the overall SCS scale ($r = 0.21$; small practical effect; $p < 0.01$). In the case of the career adaptation subscale, the outcome indicated a significant positive correlation with the overall scale of the SCS ($r = 0.15$; small practical effect; $p < 0.01$). In the case of work-life adjustment, there was a significant positive correlation with the overall scale of the SCS ($r = 0.33$; moderate practical effect; $p < 0.01$). The overall PCPS revealed a significant positive correlation with the social connectedness subscales of friendship opportunity ($r = 0.43$; moderate practical effect; $p < 0.01$), friendship prevalence scale (not significant), and the overall SCS ($r = 0.27$; small practical effect' $p < 0.01$).

Inferential statistics: Moderated regression analysis

This section presents the results of the moderated regression analysis conducted using the process macro procedure within

IBM SPSS (version 28) as outlined by Hayes (2022). This methodology was employed to ascertain the feasibility of achieving the research objective, which aimed to investigate whether biographical variables, including age, gender, marital status and job level, act as moderators in the relationship between career pre-occupations, social connectedness and organisational commitment.

Moderated effect of socio-demographic variables on the psychosocial career pre-occupations scale in predicting organisational commitment scale

Based on the insights collected from Table 3, socio-demographic variables (age, gender, marital status and job level) were identified as moderating variables. In this context, overall organisational commitment was considered the dependent variable, while psychosocial career pre-occupations and social connectedness were treated as independent variables. As Hayes (2018, 2022) explains, investigating whether the relationship between predictor and outcome variables is influenced by a moderator involves conducting moderated regression analysis. Furthermore, Hayes (2022) and Hu and Jiang (2018) emphasise that this technique aids researchers in conceptualising and understanding the conditional framework through which a variable influences another variable, thereby facilitating the examination of hypotheses concerning conditional effects. Hence, as highlighted by Hayes (2018), moderated regression analysis scrutinises research questions pertaining to the circumstances in which particular effects, including moderation or interaction effects, manifest.

The moderation effect, elucidated in Table 3, unveils the outcomes of moderated regression analysis, showcasing the moderating impacts of socio-demographic variables (age, gender, marital status and job level) on the PCPS when predicting the OCS.

In Table 3, the model evaluating the interaction between psychosocial career pre-occupations and a socio-demographic factor, namely age, in forecasting organisational commitment yielded statistically significant outcomes ($F = 2.79$; $p = 0.04$;

TABLE 2: Bivariate correlations of psychosocial career pre-occupation scale, workplace friendship scale and organisational commitment scale ($N = 288$).

Variables	Overall PCPS	Career establishment	Career adaptation	Work-life adjustment	Overall WFS	Friendship opportunity	Friendship prevalence	Overall OCS	Affective commitment	Normative commitment	Continuance commitment
Career establishment	-	-	-	-	-	-	-	-	-	-	-
Career adaptation	0.50**	-	-	-	-	-	-	-	-	-	-
Work-life adjustment	0.67**	0.59**	-	-	-	-	-	-	-	-	-
Overall PCPS	0.82**	0.85**	0.88**	-	-	-	-	-	-	-	-
Friendship opportunity	0.36**	0.28**	0.47**	0.43**	-	-	-	-	-	-	-
Overall WFS	0.21**	0.15**	0.33**	0.27**	0.72**	0.88**	-	-	-	-	-
Friendship prevalence	0.05	0.02	0.13*	0.08	0.31**	-	-	-	-	-	-
Affective commitment	0.08	-0.10	0.01	-0.02	0.24**	-0.04	0.09	-	-	-	-
Normative commitment	0.09	0.19**	0.13*	0.17**	0.15*	0.20**	0.22**	-0.06	-	-	-
Continuance commitment	0.03	0.10	0.13*	0.11	0.24**	0.34**	0.36**	0.16**	0.40**	-	-
Overall OCS	0.07	0.17**	0.15**	0.16**	0.23**	0.32**	0.35**	0.06**	0.84**	0.84**	-

Notes: $N = 151$; ** $p \leq 0.01$; * $p \leq 0.05$; $r \leq 0.30$ (small practical effect size), $r \geq 0.30 \leq 0.49$ (medium practical effect size), $r \geq 0.50$ (large practical effect size).

PCPS, Psychosocial Career Pre-occupation Scale; WFS, Workplace Friendship Scale; OCS, Organisational Commitment Scale.

TABLE 3: Interaction and indirect effects of the moderated regression analysis: Effects of socio-demographic variables on the psychosocial career pre-occupations scale in predicting organisational commitment scale.

Variables	Coefficient or effect	SE	<i>t</i>	<i>p</i>	Bootstrap 95% confidence interval (CI)	
					LLCI	ULCI
Outcome variable: Organisational commitment scale (OCS)						
Constant	3.17	0.05	67.85	0.00	3.08	3.27
PCPS	0.20	0.07	2.77	0.01	0.06	0.35
Age	0.04	0.07	0.61	0.54	-0.09	0.17
PCP*age	-0.05	0.10	-0.53	0.60	-0.26	0.15
Model info	-	-	-	-	-	-
$F = 2.79$	-	-	-	-	-	-
$P = 0.041$	-	-	-	-	-	-
$R^2 = 0.03$	-	-	-	-	-	-
Outcome variable: OCS						
Constant	3.18	0.05	69.33	0.00	3.09	3.27
PCP	0.21	0.07	2.94	0.00	0.07	0.35
Gender	0.25	0.09	2.73	0.01	0.07	0.43
PCP*gender	0.34	.014	2.35	0.02	0.06	0.62
Model info	-	-	-	-	-	-
$F = 7.01$	-	-	-	-	-	-
$P = 0.000$	-	-	-	-	-	-
$R^2 = 0.07$	-	-	-	-	-	-
Outcome variable: OCS						
Constant	3.17	0.05	68.30	0.00	3.08	3.27
PCP	0.20	0.07	2.82	0.01	0.06	0.35
Marital status	0.18	0.10	1.76	0.08	-0.02	0.39
PCP*marital status	0.18	0.16	1.12	0.27	-0.14	0.51
Model info	-	-	-	-	-	-
$F = 4.07$	-	-	-	-	-	-
$P = 0.007$	-	-	-	-	-	-
$R^2 = 0.04$	-	-	-	-	-	-
Outcome variable: OCS						
Constant	3.28	0.05	64.79	0.00	3.17	3.38
PCP	0.36	0.08	4.67	0.00	0.21	0.51
Job level (w1)	-0.33	0.18	-1.84	0.07	-0.69	0.02
PCP*job level (w1)	-1.05	0.32	-3.27	0.00	-1.68	-0.42
Model info	-	-	-	-	-	-
$F = 7.80$	-	-	-	-	-	-
$P = 0.000$	-	-	-	-	-	-
$R^2 = 0.12$	-	-	-	-	-	-

Note: $N = 288$; LLCI, lower-level confidence interval; ULCI, upper-level confidence interval; SE, standard error; PCP, psychosocial career pre-occupations; PCPS, Psychosocial Career Pre-occupation Scale; WFS, Workplace Friendship Scale; OCS, Organisational Commitment Scale.

$R^2 = 0.03$; indicating a small yet practically relevant effect). This indicates that approximately 3% of the alteration within the organisational commitment construct is attributed to variations in the independent variable (psychosocial career

pre-occupations), age, and the interplay between psychosocial career pre-occupations and age. Furthermore, psychosocial career pre-occupations manifested a notable primary influence on organisational commitment ($\beta = 0.20$; $t = 2.77$;

$p = 0.01$; LLCI [lower-level confidence interval] = 0.06; ULCI [upper-level confidence interval] = 0.35). Conversely, age did not exhibit a substantial effect ($\beta = 0.04$; $t = 0.61$; $p = 0.54$; LLCI = -0.09; ULCI = 0.17). The interaction effect between PCPS and age similarly demonstrated a non-significant role in elucidating variations in organisational commitment, as indicated by the ensuing values ($\beta = -0.05$; $t = -0.53$; $p = 0.60$; LLCI = -0.26; ULCI = 0.15).

As illustrated in Table 3, the model assessing the interaction impact between the PCPS and gender in forecasting organisational commitment yielded statistically significant findings ($F = 7.01$; $p = 0.00$; $R^2 = 0.07$; indicating a modest yet practically meaningful effect). This implies that around 7% of the fluctuations within the organisational commitment construct can be attributed to variations in the independent variable (psychosocial career pre-occupations), gender, and the interplay between psychosocial career pre-occupations and gender. Both psychosocial career pre-occupations and gender demonstrated noteworthy impacts on organisational commitment: PCP ($\beta = 0.21$; $t = 2.94$; $p = 0.00$; LLCI = 0.07; ULCI = 0.35) and gender ($\beta = 0.25$; $t = 2.73$; $p = 0.01$; LLCI = 0.07; ULCI = 0.43). Concerning the collective interaction effect between PCPS and gender, the outcome unveiled a marginally significant interaction effect in elucidating variations in organisational commitment, with the ensuing values ($\beta = 0.34$; $t = 2.35$; $p = 0.02$; LLCI = 0.06; ULCI = 0.62).

Additionally, Table 4 demonstrated that the model analysing the interaction effect between the PCPS and marital status in forecasting organisational commitment yielded statistically significant outcomes ($F = 4.07$; $p = 0.007$; $R^2 = 0.04$; indicating a minor yet practically relevant effect). This implies that roughly 4% of the alterations within the organisational commitment construct can be attributed to fluctuations in the independent variable (psychosocial career pre-occupations), marital status, and the interplay between psychosocial career pre-occupations and marital status. Only psychosocial career pre-occupations exhibited a significant primary influence on organisational commitment ($\beta = 0.20$; $t = 2.82$; $p = 0.01$; LLCI = 0.06; ULCI = 0.35). In contrast, marital status displayed neither substantial main effect ($\beta = 0.18$; $t = 1.76$; $p = 0.08$; LLCI = -0.02; ULCI = 0.39) nor a significant interaction effect in clarifying variations in organisational commitment, as reflected in the ensuing values ($\beta = 0.18$; $t = 1.12$; $p = 0.27$; LLCI = -0.14; ULCI = 0.51).

The model assessing the interaction effect between psychosocial career pre-occupations and job level in forecasting organisational commitment yielded statistically significant findings ($F = 7.80$; $p = 0.00$; $R^2 = 0.12$; signifying a minor yet practically meaningful effect). This implies that approximately 12% of the fluctuations within the organisational commitment construct can be attributed to variations in the independent variable (psychosocial career pre-occupations), job level, and the interaction between psychosocial career pre-occupations and job level. Psychosocial career pre-occupations demonstrated a notable

primary impact on organisational commitment ($\beta = 0.36$; $t = 4.67$; $p = 0.00$; LLCI = 0.21; ULCI = -0.51), while the job level (acting as a moderator) did not yield a substantial primary effect ($\beta = -0.33$; $t = -1.84$; $p = 0.07$; LLCI = -0.69; ULCI = 0.02). An evident interaction effect was observed in elucidating variations in organisational commitment, as indicated by the ensuing values ($\beta = -1.05$; $t = -3.27$; $p = 0.00$; LLCI = -1.68; ULCI = -0.42); however, this interaction exhibited a negative influence on the dependent variable.

Moderated effect of socio-demographic variables on the social connectedness scale in predicting organisational commitment scale

Table 4 illustrates the outcomes of the moderated regression analysis, showcasing the influence of socio-demographic variables (age, gender, marital status and job level) as moderators on the social connectedness scale (SCS) when predicting the OCS.

Table 4 presents findings from the model examining the interplay between social connectedness and socio-demographic variables, such as age, in predicting organisational commitment. The results indicate statistical significance ($F = 6.89$; $p = 0.00$; $R^2 = 0.15$; small practical effect), suggesting that 15% of the variance in organisational commitment can be attributed to variations in the independent variable (social connectedness). Moreover, the main effect of social connectedness on organisational commitment was marginally significant ($\beta = 0.43$; $t = 2.14$; $p = 0.03$; LLCI = 0.03; ULCI = 0.82), while age did not demonstrate a significant effect ($\beta = -0.18$; $t = -1.24$; $p = 0.22$; LLCI = -0.47; ULCI = 0.15). Additionally, the interaction effect between social connectedness (SCS) and age did not indicate moderation in explaining the variance in organisational commitment ($\beta = -0.14$; $t = -0.64$; $p = 0.53$; LLCI = -0.57; ULCI = 0.29).

The model assessing the interaction effect between the SCS and gender in predicting organisational commitment was statistically significant ($F = 18.79$; $p = 0.00$; $R^2 = 0.17$; small practical effect). This indicates that 17% of the variance in organisational commitment can be explained by variations in the independent variable (social connectedness). Both social connectedness and gender exhibited significant main effects on organisational commitment: SCS ($\beta = 0.42$; $t = 6.39$; $p = 0.00$; LLCI = 0.29; ULCI = 0.54) and gender ($\beta = 0.24$; $t = 2.76$; $p = 0.01$; LLCI = 0.07; ULCI = 0.41). The combined interaction effect between social connectedness and gender demonstrated a moderating effect in explaining the variance in organisational commitment ($\beta = 0.36$; $t = 2.79$; $p = 0.01$; LLCI = 0.11; ULCI = 0.62).

Table 4 further confirms the model's statistical significance by examining the interaction between the SCS and marital status in predicting organisational commitment ($F = 14.49$; $p = 0.00$; $R^2 = 0.13$; small practical effect). In this analysis, 13% of the variance in organisational commitment is explained by variations in the independent variable (social connectedness). Only social connectedness demonstrated a significant main

TABLE 4: Interaction and indirect effects of the moderated regression analysis: Effects of socio-demographic variables on the social connectedness scale in predicting organisational commitment scale.

Variables	Coefficient or effect	SE	<i>t</i>	<i>p</i>	Bootstrap 95% confidence interval (CI)	
					LLCI	ULCI
Outcome variable: Organisational commitment scale (OCS)						
Constant	3.30	0.13	24.73	0.00	3.04	3.57
SC	0.43	0.20	2.14	0.03	0.03	0.82
Age	-0.18	0.15	-1.24	0.22	-0.47	0.15
SC*age	-0.14	0.22	-0.64	0.53	-0.57	0.29
Model info	-	-	-	-	-	-
<i>F</i> = 6.89	-	-	-	-	-	-
<i>P</i> = 0.000	-	-	-	-	-	-
<i>R</i> ² = 0.15	-	-	-	-	-	-
Outcome variable: OCS						
Constant	3.18	0.04	73.26	0.00	3.09	3.26
SC	0.42	0.07	6.39	0.00	0.29	0.54
Gender	0.24	0.09	2.76	0.01	0.07	0.41
SC*gender	0.36	0.13	2.79	0.01	0.11	0.62
Model info	-	-	-	-	-	-
<i>F</i> = 18.79	-	-	-	-	-	-
<i>P</i> = 0.000	-	-	-	-	-	-
<i>R</i> ² = 0.17	-	-	-	-	-	-
Outcome variable: OCS						
Constant	3.17	0.04	71.73	0.00	3.09	3.26
SC	0.42	0.07	6.28	0.00	0.29	0.55
Marital status	0.16	0.10	1.60	0.11	-0.04	0.35
SC*marital status	0.18	0.15	1.15	0.25	-0.13	0.48
Model info	-	-	-	-	-	-
<i>F</i> = 14.49	-	-	-	-	-	-
<i>P</i> = 0.000	-	-	-	-	-	-
<i>R</i> ² = 0.13	-	-	-	-	-	-
Outcome variable: OCS						
Constant	3.25	0.05	68.05	0.00	3.15	3.34
SC	0.56	0.07	7.74	0.00	0.42	0.70
Job level	-0.50	0.15	-3.23	0.00	-0.79	-0.19
SC*job level	-0.72	0.19	-3.83	0.00	-1.09	-0.35
Model info	-	-	-	-	-	-
<i>F</i> = 14.89	-	-	-	-	-	-
<i>P</i> = 0.000	-	-	-	-	-	-
<i>R</i> ² = 0.21	-	-	-	-	-	-

Note: *N* = 288; LLCI, lower-level confidence interval; ULCI, upper-level confidence interval; SE, standard error; SC, social connectedness; PCPS, Psychosocial Career Pre-occupation Scale; WFS, Workplace Friendship Scale; OCS, Organisational Commitment Scale.

effect on organisational commitment ($\beta = 0.42$; $t = 6.28$; $p = 0.00$; LLCI = 0.29; ULCI = 0.55). However, marital status neither displayed a significant main effect ($\beta = 0.16$; $t = 1.60$; $p = 0.11$; LLCI = -0.04; ULCI = 0.35) nor a moderating effect in explaining the variance in organisational commitment ($\beta = 0.18$; $t = 1.15$; $p = 0.25$; LLCI = -0.13; ULCI = 0.48).

Concerning the moderating influence of socio-demographic variables, particularly job level, on the association between social connectedness and organisational commitment, the overall model demonstrated statistical significance ($F = 14.89$; $p = 0.00$; $R^2 = 0.21$; moderate practical effect). This indicates that 21% of the variation in organisational commitment can be explained by variations in the independent variable (social connectedness). Social connectedness exhibited a significant main effect on organisational commitment ($\beta = 0.56$; $t = 7.74$; $p = 0.00$; LLCI = 0.42; ULCI = 0.70), while job level (the moderator) also showed a significant main effect ($\beta = -0.50$; $t = -3.23$; $p = 0.00$; LLCI = -0.79; ULCI = -0.19). The interaction effect was significant in explaining the variance in organisational

commitment ($\beta = -0.72$; $t = -3.83$; $p = 0.00$; LLCI = -1.09; ULCI = -0.35), yet the interaction had a negative moderating effect on the dependent variable (organisational commitment).

In summary, regarding practical implications, it is worth noting that only the model testing the interaction between social connectedness and job level in predicting organisational commitment demonstrated a moderate practical effect. In contrast, the remaining moderators showed a small practical effect, as evidenced by both Table 3 and Table 4. Additionally, the results in Table 4 revealed that socio-demographic variables (excluding age and marital status) significantly moderated the relationship between social connectedness and the prediction of organisational commitment.

Discussion

This implies that when participants maintain a favourable outlook on their psychosocial career pre-occupations, especially regarding accord with colleagues in their role and

attaining financial autonomy from their upbringing, their inclination towards career prospects matching their interests, skills and abilities, coupled with their capability to establish themselves in their chosen career field, might lead to favourable perceptions regarding their commitment to the organisation. Consequently, this could encourage proactive career self-management among employees in higher educational institutions. Numerous studies by different researchers support the notion that the fulfilment of psychosocial career pre-occupations enhances employees' commitment levels (Bester et al., 2019; Coetzee, 2015; Coetzee & Schreuder, 2018; Coetzee & Takawira, 2019; Deas, 2017; Hirschi & Koen, 2021; Kwao, 2023; Potgieter et al., 2019).

In the overall correlation analysis, notable findings emerged. Significant and positive correlations were observed among the three facets of psychosocial career pre-occupations, the two elements of social connectedness and the three sub-factors of organisational commitment. Furthermore, significant and positive relationships were detected between all sub-factors and respondents' overall psychosocial career pre-occupations, overall social connectedness and overall organisational commitment.

Regarding the outcomes presented in Tables 3 and 4, all socio-demographic factors (age, gender, marital status and job level) were utilised as moderating (control) variables in pursuit of the overarching objective of this research study. Both psychosocial career pre-occupations and social connectedness were treated as independent variables, while organisational commitment was nominated as the dependent variable. The results from the moderated analysis revealed that respondents' gender and job level acted as moderators influencing the relationship between psychosocial career pre-occupations and organisational commitment. This finding differs from previous research conclusions, which suggested that age and job level did not moderate individual perceptions of psychosocial career pre-occupations (Coetzee, 2015; Deas, 2017; Deas & Coetzee, 2020; Potgieter et al., 2019) in their prediction of organisational commitment.

The findings indicated that both gender and job levels of individuals within the organisation influence the strength and direction of the relationship between individuals' perceptions of psychosocial career pre-occupations and their predictions of organisational commitment. These results suggested that gender, particularly female gender, had a more significant impact on the connection between psychosocial career pre-occupations and organisational commitment (Kwao, 2023). This finding is noteworthy as females tend to be more driven towards pursuing higher levels of career advancement compared to their male counterparts, in alignment with previous research that underscored females' heightened commitment to their careers relative to males (Holth et al., 2017; Kwao, 2023).

Moreover, the results concerning job level in this study suggested that, in the context of formulating and executing strategies for career self-management, in conjunction with psychosocial career pre-occupations and social connectedness,

special emphasis on job levels might be pivotal for predicting organisational commitment. Once more, the results of the moderated analysis revealed that the interaction among individuals' psychosocial career pre-occupations, social connectedness and organisational commitment depended on the individuals' gender and job level. Other socio-demographic factors, such as age and marital status, showed limited or no evident associations with the constructs under investigation. When combined, these results offer partial validation of the research aim.

Implications for human resource development practice

Based on the findings of the research, a number of recommendations are put forward for higher educational institutions in order to enhance employees' career self-management capabilities to ensure higher levels of organisational commitment. These recommendations for the management of public higher educational institutions are highlighted in this section.

Organisational-level interventions

Enhance clarity on career self-management strategies: It is recommended that institutional management provides clear and transparent communication about the available career self-management strategies and support systems. These measures should prioritise employee advancement within the workplace.

Promote diversity-focussed career self-management practices: The management of public higher educational institutions should direct their career self-management practices towards promoting additional support. This involves considering socio-demographic factors such as age, gender, marital status and job level.

Initiate support systems: Institutional leaders should proactively establish support systems, such as employee counselling, career assistance programmes and coaching initiatives. These programmes will aid employees in effectively navigating their careers within the evolving landscape of the modern workforce.

Strategic use of assessment scales: The assessment scales, namely the PCPS, SCS and OCS should be used proactively. These tools can help pinpoint individual career needs and inform the development of career self-management strategies aligned with broader organisational objectives.

Leverage psychosocial career pre-occupations scale: The management should take a more proactive approach in using the PCPS to identify specific employee career concerns within the organisation. This data can then be used to tailor career management practices aimed at fostering individual growth within their roles.

Promote work-life balance: The management of public higher educational institutions should develop and implement

effective work–life balance opportunities. Particularly, senior staff, including teaching staff and female employees, have shown a need for these opportunities. This could encompass flexible work schedules and options for remote work from home, as supported by existing research (Bowen, 2020; Dingel & Neiman, 2020; Ferrari et al., 2021; Prasad et al., 2020).

Facilitate workplace friendships: Promoting a conducive work environment by encouraging the use of the SCS. This will enable the identification of specific workplace friendships among employees, contributing to a positive and collaborative work atmosphere.

Individual-level interventions

In light of the findings and the intricate connections uncovered in this study, the following interventions can be performed on an individual level in terms of career self-management strategies:

- Employees should engage in self-evaluation, particularly when receiving feedback related to their psychosocial career pre-occupation stages, encompassing career establishment, adaptation and work-life adjustment phases. This self-reflection aids in preparing individuals for future career progressions within any organisational context.
- Institutions should consistently offer individual employees opportunities to assess their psychosocial career concerns and social connectedness initiatives, including friendship dynamics, on a daily basis. This facilitates employees in recognising the factors that drive their commitment to the institution of which they are a part.
- Institutional management should guide individuals in taking into account their unique biographical characteristics, such as age, gender, marital status and job level when selecting suitable career development strategies for their career trajectory.
- Management of public higher educational institutions should maintain open dialogues with employees to help them gain insight into their specific psychosocial career pre-occupations. This understanding assists employees in identifying their career needs. Furthermore, distinct dimensions of workplace friendships (either friendship opportunities or friendship prevalence) that foster positive workplace relationships should be deliberately developed, introduced and integrated to aid employees in attaining the overall organisational objectives.

Limitations and future research directions

There are several limitations that warrant consideration in the interpretation of the findings. The use of convenience sampling restricts the generalisability and practical applicability of the results. In addition, the relatively modest sample size diminishes the confidence in the findings. A larger and more diverse sample encompassing various sectors, with a balanced representation of demographic variables such as age groups, could yield a more inclusive range of outcomes.

As a result of the exploratory correlational design employed, causal relationships cannot be established; only the extent and direction of associations among variables are determined. The reliance on self-reported measures introduces the potential for common method bias, necessitating careful consideration in future research endeavours.

Concerning organisational commitment, previous studies have similarly reported positive associations with the overarching organisational commitment construct. Consequently, the analysis focussed on these overall constructs. Future research should encompass diverse industries to capture varied perspectives. Future research might also explore deeper lying realities among the constructs using a qualitative research approach.

Suggested future longitudinal studies could evaluate the consistency of relationships between constructs and their sub-dimensions across an employee's career trajectory, encompassing early, middle and late stages. Such research endeavours would assist HR managers and practitioners in interpreting outcomes and contribute to the creation of comprehensive career profiles beneficial for the efficient management of staff across all categories within work environments in higher educational institutions.

Conclusion

Higher educational institutions can use the gathered pertinent information to aid employees in comprehending the significance of proactive career self-management and its potential influence on the organisation. Institution members might undergo training in proactive career self-management initiatives to bolster their engagement in work-related endeavours. In cases where individuals exhibit a limited grasp of proactive career management, practitioners could implement targeted interventions to ensure these individuals derive substantial benefits from the organisational career programmes in place.

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N.F. was the research supervisor, developed the research methodology and produced the original draft. I.T.K. was responsible for the study conceptualisation and conducting the original research. I.L.P. contributed to the review and editing of the manuscript.

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Data availability

The data that support the findings of this study are available on request from the corresponding author, N.F., upon reasonable request.

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