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RESEARCH ARTICLE

The Relationship between Employees' Career Self-management and Career Sustainability: A Latent Profile Analysis

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Abstract

In accordance with the increasingly dynamic career environment, employees' proactive self-management has become pivotal to sustaining long-term employability. Although both theoretical and empirical studies have shown the benefits of career self-management, most studies have ignored the interwind relationships between different career self-management. Drawing on a diverse sample of 368 Chinese employees across occupations, this study employs latent profile analysis to uncover latent patterns of career self-management and examines their differential associations with career sustainability. Three empirically distinct profiles emerged: low, moderate, and high career self-management. These three profiles differed in predicting career sustainability. Employees with high career self-management exhibit the strongest positive effect on career sustainability. These findings extend career development theory by integrating person-centered insights into career sustainability research and provide human resource practitioners with evidence-based guidance for tailoring developmental support to employees' self-management capacities.

Keywords: Career Self-Management, Career Sustainability, Latent Profile Analysis, Perceived Employability.

1 Introduction

The rapid development of Internet and artificial intelligence technology is changing the situation in the labor market. The old jobs and occupations are gradually being eliminated and replaced, and new jobs and occupations are being created. The core tasks and required skills of most jobs and occupations will change fundamentally in the next few decades (Arntz et al., 2016). Therefore, many workers around the world need to continuously train or upgrade their skills, which requires a high degree of personal initiative. As the career environment becomes increasingly dynamic, scholars have conducted extensive research on career self-management. It includes various specific behaviors, such as career exploration, learning or networking (Lent & Brown, 2013). Career self-management is important for addressing the challenges and opportunities in modern career development (Hirschi, 2018).

Career self-management refers to the process by which individuals regulate their career actions, including the development, pursuit, and adaptation of career goals (Greenhaus et al., 2009). Most scholars generally argue that career self-management is a multidimensional construct comprising multiple behaviors which are correlated but distinct (Gould & Penley, 1984; Hirschi & Koen, 2021; Wilhelm et al., 2024). These career self-management behaviors are defined as "intentional, self-initiated, and self-targeted behaviors aiming at substantially enhancing work-related experiences in the mid- or long-term within and outside of organizational contexts" (Wilhelm et al., 2024, p.346). Recent studies have shown that career self-management were associated

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with individual positive outcomes, such as career well-being (Wilhelm & Hirschi, 2019), career satisfaction and life satisfaction (King, 2004), and employability (Wilhelm et al., 2024). These studies have predominantly employed a variable-centered approach to assess the impact of overall career self-management on individuals' outcomes. However, career self-management typically involves multiple, interrelated behaviors, and recent studies have highlighted the substantial interconnections among these behaviors (Wilhelm et al., 2024). To explore the diverse configurations of such behaviors, the present study adopts a person-centered approach, aiming to identify and evaluate the benefits of distinct latent profiles of career self-management.

Person-centered approaches, which consider the individual as the primary unit of analysis, enable researchers to detect subgroups with unique behavioral patterns that may be overlooked by variable-centered methods (Bergman et al., 2003; Chang et al., 2023). These methods thus offer more nuanced insights into how individuals integrate various self-management behaviors. The latent profile analysis (LPA) is a particularly useful person-centered technique (Bergman et al., 2003). Compared to other person-centered methods such as latent class analysis and mixture modeling, LPA emphasizes identifying meaningful, shared patterns of behavior within the population (Ferguson & Hull, 2018). Consequently, LPA allows for the simultaneous examination of different subdimensions of career self-management and the detection of diverse profiles among individuals based on their career self-management behaviors, which can influence individual outcomes.

Although prior research has linked career self-management to a range of positive individual outcomes, these findings remain fragmented and lack an integrative conceptual frame. A promising avenue for consolidation is offered by the merging notion of career sustainability, defined as "a sequence of career experiences reflected through a variety of patterns of continuity over time, thereby crossing several social spaces, characterized by individual agency, herewith providing meaning to the individual" (De Vos & Van der Heijden, 2015, p.7). These career experiences jointly enable individuals to maintain health, happiness, and productivity—the three core indicators of career sustainability (De Vos & Van der Heijden, 2015; De Vos et al., 2020). Central to this definition are precisely the agentic, goal-directed behaviors that constitute career self-management. Because the maintenance and shaping of a sustainable career depend on individuals' proactive regulation of their career trajectories, treating career sustainability as the outcome of distinct career self-management patterns is theoretically warranted. Accordingly, after employing latent profile analysis to identify heterogeneous career self-management configurations, the present study examines how these profiles relate to employees' attainment of sustainable careers, thereby integrating previously disparate findings into a unified framework.

2 Literature Review and Research Content

2.1 Measurements of Career Self-Management

Scholars agree that career self-management is a dynamic process that includes a series of self-regulatory cognitions and behaviors. For example, King (2004) identified three key behavioral categories: positioning, influence, boundary management. Other studies have explored various career self-management behaviors, including skill development (Heslin et al., 2019), networking (Forret & Dougherty, 2004), or career exploration (Jiang et al., 2019). More recently, Wilhelm et al. (2024) further identified seven career self-management behaviors: (a) impression management, (b) building contacts, (c) using contacts, (d) human capital development, (e) goal setting and planning, (f) self-exploration and (g) mobility-oriented behavior. Despite the increasing scholarly attention to career self-management, there remains a lack of consensus in the literature on how to conceptualize career self-management and what constitutes its core behaviors. Existing theoretical models indicate a wide variety of behaviors being studied, but there is debate over which behaviors are central to the career self-management construct (Hirschi & Koen, 2021; King, 2004). This lack of a shared understanding of key career self-management behaviors has led to fragmented research on career self-management.

Grounded in action-regulation theory (Zacher & Frese, 2018; Raabe et al., 2007), the present study adopts a process perspective to reconstruct the core behaviors that constitute career self-management. Self-regulation theory posits that goal setting, information acquisition, planning, execution, and feedback constitute the sequential stages through which individuals regulate their behaviors (Frese & Zapf, 1994). Integrating these foundational stages with Wilhelm et al.'s (2024) empirical evidence of career self-management, we propose a four-phase process model that encompasses (1) goal setting and planning, (2) career exploration (including both self- and environment-focused exploration), (3) career engagement, and (4) feedback-seeking. We use

latent profile analysis to examine how their distinct configurations of theses career self-management relate to employees' career sustainability.

2.2 Measurements of Career Sustainability

Although the concept of career sustainability has been approached from multiple theoretical perspectives, recent studies suggest a growing consensus around three core indicators: health, happiness, and productivity throughout one's working life (De Vos et al., 2020). In their framework, De Vos et al. (2020) define health as encompassing both physical and psychological well-being, happiness as reflecting satisfaction with one's career, and productivity as the combination of strong current job performance and future employability. Expanding on this model, Tordera et al. (2020) further refined these elements into two overarching dimensions—well-being (including health and happiness) and productivity (reflected in performance)—as key indicators of career sustainability.

To obtain a reliable indicator of career sustainability, further operationalization of both productivity and wellbeing that encompass the breadth and complexity of those constructs is needed. Following Koopmans et al.'s (2011) model, the current study operationalizes productivity as a composite measure of performance that includes task (or in-role) performance, extra-role performance (creative performance), and employability. Consistent with recent literature, performance is thus viewed as a multidimensional construct (Koopmans et al., 2011) that not only includes the fulfillment of role duties, but also the possibility of individuals obtaining employment opportunities in the external labor market (Wittekind et al., 2010). In this sense, a broad comprehensive measure of performance will better capture its contribution to career sustainability. Wellbeing is also a complex construct encompassing different facets or dimensions. In the current study, we operationalize wellbeing as a composite of career satisfaction and life satisfaction. Specifically, career satisfaction reflects the degree to which an individual is satisfied with his or her career progress, which is often seen as one central indicator of subjective career success (Abele et al., 2011). In addition, we include life satisfaction as part of our composite wellbeing measure because of its positive association with longevity (Diener & Chan, 2011) and healthy behaviors (Grant et al., 2009).

2.3 Associations between Career Self-Management and Career Sustainability

A growing body of research has explored factors influencing career sustainability. Notably, some studies have focused on the impact of organizational practices (e.g., Bozionelos et al., 2020; Tordera et al., 2020) and broader contextual influences (Lent & Brown, 2020; Richardson & McKenna, 2020). While these findings offer important insights, there remains limited understanding of the extent to which individual-level factors contribute to the development of sustainable careers. Investigating personal characteristics is especially critical, given the central role of individual agency in modern career trajectories. Prominent career theories—such as the boundaryless, protean, and career construction models—emphasize that personal agency often outweighs organizational or contextual determinants in shaping career paths (Arthur & Rousseau, 1996; Savickas, 2013). Thus, our study focuses on the impact of individuals' career self-management on career sustainability.

Although there is no direct empirical evidence linking career self-management to career sustainability, prior findings provide indirect support for their association. A substantial body of research demonstrates that career self-management is positively associated with both career satisfaction and life satisfaction (King, 2004; Raabe et al., 2007; Wilhelm & Hirschi, 2019). Moreover, studies have shown that career self-management predicts indicators of productivity, such as organizational responsiveness and salary growth (Raabe et al., 2007), job decision effectiveness (Weng & McElroy, 2010), and perceived employability (Wilhelm et al., 2024). Collectively, these findings lead us to hypothesize that career self-management is significantly related to the well-being and productivity dimensions of career sustainability.

2.4 The Study Aims

Overall, the primary objective of this study was to employ a person-centered approach to explore the different latent profiles of career self-management and examine how these profiles are related to career sustainability. Previous research has often examined the impact of career self-management through a variable-centered perspective (e.g., Raabe et al., 2007; Wilhelm & Hirschi, 2019; Wilhelm et al., 2024). This study employed latent profile analysis to answer two research questions: What is the profile structure of employees' career self-management? And how do different types of career self-management influence sustainable careers?

3. Methods

3.1 Participants

This study employed convenience sampling and

distributed an online questionnaire to employees from multiple companies in China. To ensure the authenticity and validity of our data, the questionnaires were completed anonymously. Before responding, participants read an informed-consent statement explaining that their answers would be used solely for academic purposes and that they should answer according to their genuine perceptions. A total of 400 questionnaires were distributed, and 368 valid responses were returned, yielding an effective response rate of 92%.

Table 1 presents the characteristics of 368 participants. Regarding gender, 126 participants (34.2%) were male, and 242 participants (65.8%) were female. In terms of education, 63.3% held a bachelor's degree, 30.4% had completed high school or below, and 6% possessed a master's degree or higher. Work experience ranged from 1 to 5 years for 47% of the sample, 6-10 years for 17.9%, 11–20 years for 21.2%, and more than 20 years for 13.9%.

Table 1. *Demographic information of the research sample (n = 368)*

Variable		Frequency	Percentage
Gender	Male	126	34.2%
	Female	242	65.8%
Educational level	High school and below	112	30.4%
	Bachelor's degree	234	63.6%
	Master's degree and above	22	6.0%
Work experience	1-5 years	173	47.0%
	6-10 years	66	17.9%
	10-20 years	78	21.2%
	More than 20 years	51	13.9%

3.2 Measurements

The study employed six validated scales, grouped into two sections. Section 1 assessed career self-management via a four-dimensional instrument. Section 2 measured career sustainability through five indicators: life satisfaction, career satisfaction, task performance, creative performance, and perceived employability. All items were rated on a 6-point Likert scale anchored from 1 (strongly disagree) to 6 (strongly agree).

3.2.1 Career Self-management

Career self-management was assessed with the 15-item scale adapted from Wilhelm et al. (2024). According to action-regulatory theory, the instrument captures four interrelated dimensions of career self-management behavior: (a) career goal setting and planning (3 items, e.g., "Set clear goals for what I want to achieve in my career"), (b) self- and mobility-oriented exploration (6 items, e.g., "Reflected on my own strengths and abilities" and "Obtained information regarding specific jobs or companies"), (c) career engagement (3 items, e.g., "Undertook things to realize my career goals"), and (d) feedback-seeking (3 items, e.g., "Asked contacts for tips and advice on my career"). Higher scores indicate that employees engage in more career self-management behaviors. In this study, the Cronbach's alpha reliability coefficient of this scale was 0.944.

3.2.2 Career Sustainability

In this study, career sustainability is operationalized as five indicators: life satisfaction, career satisfaction, task performance, creative performance, and perceived employability. Specifically, we measured life satisfaction using the 5-item scale developed by Diener et al. (1985). Sample items include "In most ways, my life is close to my ideal" and "The conditions of my life are excellent" (Cronbach's α= 0.917). Career satisfaction was measured using a 5-item scale developed by Greenhaus et al. (1990). A sample item was "I am satisfied with the success I have achieved in my career". Higher scores reflect greater career satisfaction. In the current study, the scale demonstrated excellent internal consistency (Cronbach's α = 0.947). Task performance was measured using a 4-item scale developed by Van Dyne and LePine (1998). A sample item was "I perform the tasks that are expected as part of the job". Cronbach's alpha for the present study was 0.922. Creative performance was measured with the four-item scale developed by Baer and Oldman (2006). A sample item was "I often come up with creative solutions to problems at work." Higher scores denote higher levels of creative performance. The scale demonstrated excellent internal consistency (Cronbach's α = 0.945). Finally, perceived employability was measured using the three-item scale developed by Janssens et al. (2003). Sample items include "I'm confident that

I would find another job if I started searching" and "In case I'm dismissed, I'll immediately find a job of equal value." Responses are averaged, with higher scores reflecting stronger perceived employability. The scale demonstrated excellent internal consistency (Cronbach's α = 0.916).

4. Results

4.1 Descriptive Statistics and Correlation Analysis

Table 2 presents the means, standard deviations, and correlation coefficient of the study variables. Career self-management was positively associated with life satisfaction ($r = 0.590$, $p < 0.001$), career satisfaction ($r = 0.687$, $p < 0.001$), task performance ($r = 0.750$, $p < 0.001$), creative performance ($r = 0.742$, $p < 0.001$), and perceived employability ($r = 0.671$, $p < 0.001$). These correlations provide preliminary evidence of the relationship between career self-management and career sustainability.

Table 2. *Descriptive statistics and correlation analysis of the study variables*

Variables	M	SD	1	2	3	4	5
1 Career self-management	4.802	0.897					
2 Life Satisfaction	4.555	1.073	0.590***				
3 Career Satisfaction	4.705	1.023	0.687***	0.824***			
4 Task Performance	4.919	0.849	0.750***	0.589***	0.678***		
5 Creative Performance	4.654	1.080	0.742***	0.676***	0.729***	0.654***	
6 Perceived Employability	4.515	1.114	0.671***	0.778***	0.764***	0.662***	0.751***

Notes. *n = 368, ***p < 0.001.*

4.2 Latent Profile Analysis of Career Self-Management

To explore the latent profiles of career self-management, latent profile analysis (LPA) was established based on participants' scores in career goal setting and planning, career exploration, career engagement, and feedback-seeking. For LPA, these criteria included Akaike information criterion (AIC), Bayesian information criterion (BIC), and sample-size-adjusted BIC (aBIC), *p* for the Lo–Mendell–Rubin likelihood-ratio test (*p*LMRT), the bootstrap likelihood-ratio test (BLRT), and entropy. For AIC, BIC, and aBIC, the smaller the value is, the better. The *p*LMRT and BLRT was used to determine the statistical significance of accepting the model with *k* groups over the model *k*-1 groups (Chen & Usher, 2013; Lin et al., 2018). For entropy, if it was less than 0.60, there would be more than 20% of individuals classified into the wrong groups, and 0.80 would be the minimal level for classification (Lubke & Muthén, 2007).

As the number of groups (from *k* =1 to 4) increased, the values of AIC, BIC, and aBIC decreased (see Table 3). When there were three profile groups, the value of *p*LMRT and BLRT was significant ($p < 0.05$), confirming that a three-profile model was statistically superior to a two-profile model. Moreover, the entropy value for this model reached 0.958, implying a classification accuracy exceeding 90%. In contrast, the LMR p-values for the two- and four-class solutions were non-significant, providing no evidence in favor of these alternative models.

The average latent class probabilities for the most likely latent class membership of the three profile models ranged from 97 to 98.8% (see Table 4), with probability values greater than 80%, indicating the credibility of the three profiles. Based on these indicators, all three profiles models were considered to be the best fitting model.

Table 3. *Comparison of latent profile models of career self-management (n = 368)*

Number of groups	AIC	BIC	aBIC	Entropy	pLMR	BLRT	Proportions for each profile
1	16407.743	16524.985	16429.806	-	-	-	-
2	13661.756	13841.528	13695.586	0.960	0.1846	0.0000	31.52/68.48
3	12553.239	12795.540	12598.837	0.958	0.0412	0.0000	50.27/23.64/26.09
4	11700.351	12005.181	11757.716	0.969	0.0954	0.0000	23.37/2.17/48.64/25.82

Note. *AIC=Akaike Information Criteria; BIC=Bayesian Information Criteria; aBIC=Sample-Size Adjusted BIC; pLMR =p value of the Lo-Mendell-Rubin test; BLRT =p value of the Bootstrap Likelihood Ratio Test.*

Table 4. *Average latent profile posterior probabilities of career self-management (n = 368)*

Class	Latent profile		
	Class 1 (%)	Class 2 (%)	Class 3 (%)
medium-level CSM (1)	0.984	0.005	0.011
Low-level CSM (2)	0.012	0.988	0.000
high-level CSM (3)	0.030	0.000	0.970

4.3 Characteristics of Latent Profiles of Career Self-Management

The scores of each latent profile of career self-management are shown in Figure 1. Among the 368 valid responses, 185 employees (50.27%) were assigned to Class 1, 87 employees (23.64%) to Class 2, and 96 employees (26.09%) to Class 3.

Class 1 displayed moderate scores across all career self-management behaviors, including career goal setting and planning, career exploration, career engagement, and feedback-seeking. These employees possess realistic career plans, actively explore new opportunities and areas for development, and demonstrate strong work motivation and focus. They also proactively seek feedback from supervisors, colleagues, and customers. Therefore, we label this category of employees as having "moderate career self-management."

Class 2 comprised 23.64% of the total sample and exhibited lower scores across all career self-management behaviors. In particular, career goal setting and planning received the lowest score, indicating that these employees have limited career goals and planning. Similarly, the low scores on exploration, engagement, and feedback suggest weak commitment to their work and a lack of continuous innovation and inquiry. Consequently, these employees receive little positive feedback, hindering the sustainability of their careers. Therefore, this category is labeled "Low-level career self-management."

Class 3 comprised 26.09 % of the sample and recorded the highest scores across all dimensions. As illustrated in Figure 1, employees in this group not only have clear and deliberate career plans but also translate these plans into systematic advancement. They invest heavily in their work processes, proactively explore opportunities, and consistently receive positive feedback from supervisors and peers—factors that jointly sustain long-term career growth. Consequently, their career self-management is classified as "high-level career self-management."

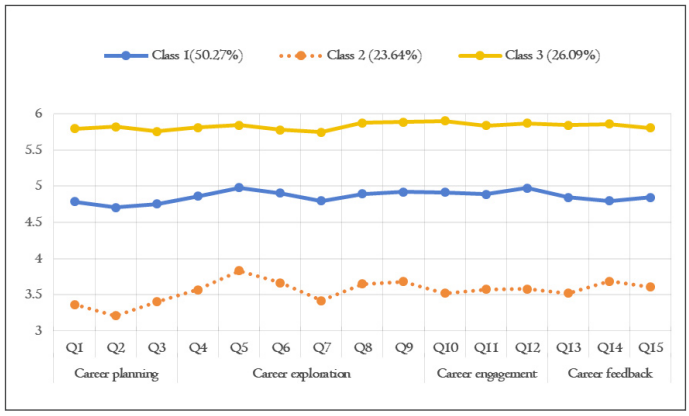

Figure 1. *Three-classification profile model of employee career self-management*

4.4 Effects of Career Self-Management Profiles on Career Sustainability

To examine how the three latent profiles of career self-management influence career sustainability, a series of one-way ANOVAs were conducted with the career self-management profiles as the independent variable and each indicator of career sustainability as the dependent variable. The statistical results are shown in Table 5. Each indicator of career sustainability showed significant differences across the three profile of career self-management: life satisfaction (F = 86.666, $p < 0.001$), career satisfaction (F = 118.070, $p < 0.001$), task performance (F = 192.882, $p < 0.001$), creative performance (F = 176.771, $p < 0.001$), and perceived employability (F = 121.182, $p < 0.001$).

Tukey's post hoc tests showed that employees in the high-level career self-management group had the most career sustainability, while employees in the low-level career self-management group had fewer career sustainability. These differences were consistent across all specific indicators of career sustainability (see Table 5).

Table 5. *Comparison of career sustainability for different profiles of career self-management*

Variable	Mean ± Standard Deviation			F	p-value	Tukey's post hoc tests
	medium-level	Low-level	high-level			
Life satisfaction	4.514±0.881	3.694±0.794	5.417±0.970	86.666***	0.000	High > Medium > Low
Career satisfaction	4.719±0.712	3.738±0.874	5.556±0.885	118.070***	0.000	
Task performance	4.937±0.519	3.997±0.857	5.721±0.407	192.882***	0.000	
Creative performance	4.672±0.748	3.509±0.946	5.656±0.629	176.771***	0.000	
Perceived employability	4.452±0.908	3.536±0.958	5.524±0.673	121.182***	0.000	

Notes. ***$p < 0.001$.

5 Discussion

5.1 Latent Profile of Employees' Career Self-Management

The current study used latent profile analysis to identify three distinct employee profiles of career self-management: low, moderate, and high. The moderate group (50.27%) comprised the largest group and achieved moderate scores across all dimensions of career self-management, including career goals setting and planning, career exploration, career engagement, and feedback-seeking. These employees maintain realistic career plans, actively explore opportunities, invest in their work, and regularly seek feedback, demonstrating a high level of focus and motivation. The high group (26.09%) obtained the highest scores on career self-management behaviors, characterized by clear career planning, elevated work engagement, proactive exploration, and effective feedback utilization. The low group (23.64%) scored lowest on all items, especially on career goals setting and planning. These employees lacked career vision, exhibited low work engagement, and rarely sought new opportunities or solicited feedback.

5.2 Associations Between Career Self-Management Profiles and Career Sustainability

This study examined how distinct career-self-management profiles relate to multiple indicators of career sustainability. Employees in the high career-self-management group reported the highest levels of life satisfaction, career satisfaction, task performance, creative performance, and perceived employability. Those in the moderate career-self-management group scored at the mid-point on every sustainability dimension, whereas the low career-self-management group consistently reported the lowest scores. Together, these findings reveal a strong, positive link between career-self-management and career sustainability. The findings are consistent with van den Groenendaal et al.'s (2022) research, which suggests that four self-management types — proactive, adaptive, survivors, and passive — have significant differences in career sustainability (i.e., well-being, health, and productivity). From a person-centered perspective, this study confirms the positive relationship between career self-management and career sustainability, emphasizing that improving career self-management can enhance employees' long-term career viability.

5.3 Theoretical Contributions and Practical Implications

This study makes three important theoretical contributions. First, although extant research has consistently treated career self-management as a multidimensional construct, most studies adopt a variable-centered approach that overlooks how the constituent behaviors combine within individuals. By employing latent profile analysis, this study shifts to a person-centered perspective and fills this critical research gap. Second, prior work remains fragmented regarding which behavioral dimensions are essential to career self-management. Drawing on action-regulation theory and the temporal sequencing of behavior, the present study operationalizes career self-management as four sequential dimensions—career goal setting and planning, career exploration, career engagement, and feedback seeking—thereby offering a comprehensive framework. Finally, the findings corroborate and extend the link between career self-management and career sustainability by demonstrating that distinct career self-management profiles exert significantly different effects on employees' long-term career viability.

This research offers clear implications for management practice. Employees exhibit unique characteristics of career self-management, and organizations should develop career management strategies accordingly. Employees with high levels of career self-management are intrinsically motivated and actively engage in career planning, seeking feedback, exploration, and investment. For these employees, granting them full autonomy can maximize their self-directed development. In contrast, employees with low levels

of self-management require structured platforms and opportunities to promote career development and enhance sustainability. Therefore, organizations must first identify the types and characteristics of employees' career self-management and then provide differentiated training and group counseling to cultivate self-management behaviors and sustainable careers.

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6. References

1. Abele, A. E., Spurk, D., & Volmer, J. (2011). The construct of career success: Measurement issues and an empirical example. *Zeitschrift für Arbeitsmarktforschung*, *43*(3), 195-206.
2. Arntz, M., Gregory, T., & Zierahn, U. (2016). The risk of automation for jobs in OECD countries: A comparative analysis.
3. Arthur, M. B., & Rousseau, D. M. (1996). A career lexicon for the 21st century. *Academy of Management Perspectives*, *10*(4), 28-39.
4. Baer, M., & Oldham, G. R. (2006). The curvilinear relation between experienced creative time pressure and creativity: moderating effects of openness to experience and support for creativity. *Journal of Applied Psychology*, *91*(4), 963.
5. Bergman, L. R., Magnusson, D., & El Khouri, B. M. (2003). *Studying individual development in an interindividual context: A person-oriented approach*. Psychology Press.
6. Bozionelos, N., Lin, C. H., & Lee, K. Y. (2020). Enhancing the sustainability of employees' careers through training: The roles of career actors' openness and of supervisor support. *Journal of Vocational Behavior*, *117*, 103333.
7. Chang, B., Zekai, L., Wang, L., Zhong, L., & Shen, Y. (2023). A latent profile analysis linking career learning experience profile to career decision-making difficulties. *The Career Development Quarterly*, *71*(2), 111-123.
8. Chen, J. A., & Usher, E. L. (2013). Profiles of the sources of science self-efficacy. *Learning and Individual Differences*, *24*, 11-21.
9. De Vos, A., & Van der Heijden, B. I. (Eds.). (2015). *Handbook of research on sustainable careers*. Edward Elgar Publishing.
10. De Vos, A., Van der Heijden, B. I., & Akkermans, J. (2020). Sustainable careers: Towards a conceptual model. *Journal of Vocational Behavior*, *117*, 103196.
11. Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75.
12. Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, *3*(1), 1-43.
13. Ferguson, S. L., & Hull, D. M. (2018). Personality profiles: Using latent profile analysis to model personality typologies. *Personality and Individual Differences*, *122*, 177-183.
14. Forret, M. L., & Dougherty, T. W. (2004). Networking behaviors and career outcomes: Differences for men and women? *Journal of Organizational Behavior, 25*(3), 419–437.
15. Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. *Handbook of industrial and organizational psychology*, *4*(2), 271-340.
16. Gould, S., & Penley, L. E. (1984). Career strategies and salary progression: A study of their relationships in a municipal bureaucracy. *Organizational Behavior and Human Performance*, *34*(2), 244-265.
17. Grant, N., Wardle, J., & Steptoe, A. (2009). The relationship between life satisfaction and health behavior: a cross-cultural analysis of young adults. *International Journal of Behavioral Medicine*, *16*(3), 259-268.
18. Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2009). *Career management.* Sage.
19. Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, *33*(1), 64-86.
20. Heslin, P. A., Keating, L. A., & Ashford, S. J. (2019). How being in learning mode may enable a sustainable career across the lifespan. *Journal of Vocational Behavior, 117*, 103324
21. Hirschi, A. (2018). The fourth industrial revolution: Issues and implications for career research and practice. *The Career Development Quarterly*, *66*(3), 192-204.
22. Hirschi, A., & Koen, J. (2021). Contemporary career orientations and career self-management: A review and integration. *Journal of Vocational Behavior*, *126*, 103505.
23. Janssens, M., Sels, L., & Van den Brande, I. (2003). Multiple types of psychological contracts: A six-cluster solution. *Human Relations*, *56*(11), 1349-1378.
24. Jiang, Z., Newman, A., Le, H., Presbitero, A., & Zheng, C. (2019). Career exploration: A review and future research agenda. *Journal of Vocational Behavior, 110,* 338–356.

25. King, Z. (2004). Career self-management: Its nature, causes and consequences. *Journal of Vocational Behavior*, *65*(1), 112-133.

26. Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., de Vet Henrica, C. W., & Van Der Beek, A. J. (2011). Conceptual frameworks of individual work performance: A systematic review. *Journal of Occupational and Environmental Medicine*, *53*(8), 856-866.

27. Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, *60*(4), 557-568.

28. Lent, R. W., & Brown, S. D. (2020). Career decision making, fast and slow: Toward an integrative model of intervention for sustainable career choice. *Journal of Vocational Behavior*, *120*, 103448.

29. Lin, L., Lee, T., & Snyder, L. A. (2018). Math self-efficacy and STEM intentions: A person-centered approach. *Frontiers in Psychology, 9,* 2033

30. Lubke, G., & Muthén, B. O. (2007). Performance of factor mixture models as a function of model size, covariate effects, and class-specific parameter. *Structural Equation Modeling: A Multidisciplinary Journal, 14*(14), 26–47.

31. Raabe, B., Frese, M., & Beehr, T. A. (2007). Action regulation theory and career self-management. *Journal of Vocational Behavior, 70*(2), 297-311.

32. Richardson, J., & McKenna, S. (2020). An exploration of career sustainability in and after professional sport. *Journal of Vocational Behavior*, *117*, 103314.

33. Savickas, M. L. (2013). Career construction theory and practice. *Career development and counseling: Putting Theory and Research to Work*, *2*(1), 144-180.

34. Tordera, N., Peiro, J. M., Ayala, Y., Villajos, E., & Truxillo, D. (2020). The lagged influence of organizations' human resources practices on employees' career sustainability: The moderating role of age. *Journal of Vocational Behavior*, *120*, 103444.

35. van den Groenendaal, S. M. E., Akkermans, J., Fleisher, C., Kooij, D. T., Poell, R. F., & Freese, C. (2022). A qualitative exploration of solo self-employed workers' career sustainability. *Journal of Vocational Behavior, 134*, 103692.

36. Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, *41*(1), 108-119.

37. Weng, Q., & McElroy, J. C. (2010). Vocational self-concept crystallization as a mediator of the relationship between career self-management and job decision effectiveness. *Journal of Vocational Behavior*, *76*(2), 234-243.

38. Wilhelm, F., & Hirschi, A. (2019). Career self-management as a key factor for career wellbeing. *Theory, research and dynamics of career wellbeing: Becoming Fit for the Future*, 117-137.

39. Wilhelm, F., Hirschi, A., & Schläpfer, D. (2024). The multidimensional nature of career self-management behaviors and their relation to facets of employability. *Journal of Occupational and Organizational Psychology*, *97*(1), 342-375.

40. Wittekind, A., Raeder, S., & Grote, G. (2010). A longitudinal study of determinants of perceived employability. *Journal of Organizational Behavior, 31*(4), 566-586.

41. Zacher, H., & Frese, M. (2018). Action regulation theory: Foundations, current knowledge, and future directions. *The SAGE handbook of industrial, work and organizational psychology*, *2*, 80-102.