Predictors of Career Adaptability among Chinese Higher Education Students: A Systematic Literature Review

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Abstract. Amid accelerating globalization, technological disruption, and evolving labour market expectations, career adaptability has emerged as a critical competence for Chinese higher education students navigating increasingly dynamic career trajectories. This study employed a systematic literature review (SLR) approach in accordance with the PRISMA framework to synthesize existing empirical research on the predictors of career adaptability. Scholarly peer-reviewed articles published from 2020 to 2025 were sourced via defined keyword combinations from Scopus and Web of Science databases. The inclusion criteria focused on empirical studies examining Chinese higher education students in relation to three key predictors: proactive personality, career decision-making self-efficacy, and social support. A total of 16 eligible studies were identified. Data were analysed thematically, guided by Career Construction Theory and Social Cognitive Career Theory. The review reveals consistent and positive relationships between each of the three predictors and career adaptability. These findings confirm the influence of both personal dispositions and contextual supports on students' career development. The study concludes by offering practical recommendations for educational interventions and proposes directions for future longitudinal and intervention-based research in culturally diverse settings.

Keywords: career adaptability; proactive personality; career decision-making self-efficacy; social support; higher education

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1. Introduction

The accelerating pace of globalization, technological innovation, and shifting labour market expectations have fundamentally transformed career development for students in China's higher education system (Ding, 2024). As both universities and vocational colleges strive to enhance graduate employability, career adaptability has emerged as a critical focus of research and practice (Gao et al., 2025). Career adaptability, as a form of psychosocial resource, assists individuals in navigating work-related demands, role changes, and career progression (Savickas, 1997; Savickas & Porfeli, 2012), and includes four key elements: concern, control, curiosity, and confidence.

A meta-analysis by Rudolph, Lavigne, and Zacher (2017) further validated career adaptability as a key predictor of adaptive behaviour and career success. In China, this competency has become increasingly important as students face mounting uncertainty in the post-pandemic employment landscape (Haibo et al., 2018; Kundi et al., 2021). Employers now expect graduates to demonstrate resilience, initiative, and future-oriented thinking in addition to academic performance.

Post-COVID-19 disruptions have further amplified the importance of adaptability. With increased competition, evolving employer expectations, and widespread uncertainty, students can no longer rely solely on academic credentials (Hirschi & Koen, 2021; Spurk et al., 2019). Instead, they must develop personal and contextual resources that support adaptive career development.

Recent studies have identified several key predictors of career adaptability. A proactive personality is characterized by an individual's inclination to initiate action and persist in the face of obstacles. This trait is positively associated with exploration and the pursuit of long-term career goals (Ahmad et al., 2019). Career decision-making self-efficacy (CDMSE) reflects individuals' belief in their ability to handle career choices and making well-informed decisions, which in turn strengthens their sense of control over career development (Abdul Rahim et al., 2021). Social support, including emotional and informational assistance from family, peers, and educators, serves both protective and facilitative functions in managing career stress and enhancing adaptability (Hou et al., 2019).

However, research in this area remains fragmented. Most studies examine these predictors in isolation, often within limited samples or specific institutional settings. There is a lack of integration across findings, as well as limited theoretical clarity, and no comprehensive synthesis focused on Chinese higher education students. To address this gap, this research conducts a systematic literature review (SLR) to consolidate evidence, identify research gaps, and evaluate the strength of associations between career adaptability and its key predictors.

This review is guided by Career Construction Theory (CCT), which emphasizes adaptability readiness and psychosocial resources in managing transitions (Coetzee et al., 2023), and Social Cognitive Career Theory (SCCT), which highlights the interplay of personal agency, self-efficacy, and contextual support (Lent & Brown, 2013). These complementary frameworks provide a robust foundation for examining the influence of both internal traits and external factors on career adaptability among Chinese higher education students. Accordingly,

this study adopts a systematic literature review to explore these theoretical relationships across empirical findings.

Based on this theoretical foundation and current research gaps, this study addresses the following questions:

RQ1: What is the relationship between proactive personality and career adaptability among Chinese higher education students?
RQ2: What is the relationship between career decision-making self-efficacy and career adaptability among Chinese higher education students?
RQ3: What is the relationship between social support and career adaptability among Chinese higher education students?

2. Theoretical Background

This study is primarily grounded in Career Construction Theory (CCT), a comprehensive and conceptually rich framework for understanding how individuals adapt to career-related tasks and transitions. Developed by Savickas (1997), CCT conceptualizes career development as a process of self-construction, whereby individuals actively shape their career paths through personal meaning-making in response to changing work environments.

Within CCT, career adaptability is conceptualized as a set of psychosocial strengths—namely concern, control, curiosity, and confidence—which help individuals prepare for the future, assume responsibility, explore opportunities, and face evolving career challenges (Savickas & Porfeli, 2012; Gregor et al., 2021). Within this framework, proactive personality reflects adaptive readiness—a dispositional tendency to initiate change—while career decision-making self-efficacy (CDMSE) functions as an adaptability resource supporting goal-directed career behaviour (Hirschi et al., 2015).

CCT's emphasis on agency, proactive behaviour, and adaptability mechanisms makes it especially suitable for investigating career adaptability among Chinese higher education students, who face increasing complexity and competitiveness in the job market. As the only theory that explicitly positions career adaptability at its core, CCT provides both a robust conceptual structure and validated measurement tools for this review.

To complement the individual-centred perspective of CCT, this research also draws upon Social Cognitive Career Theory (SCCT) as a supportive framework. SCCT (Lent et al., 1994), grounded in Bandura's (1986) Social Cognitive Theory, highlights the interaction between personal factors, behaviours, and environmental conditions. In the present study, CDMSE is conceptualized under SCCT as a key cognitive predictor, while social support is framed as an environmental enabler that promotes adaptive functioning (Hou et al., 2019; Chen et al., 2025).

While other theories, such as the Conservation of Resources (COR) theory and the Psychological Capital (PsyCap) model, have been used in prior studies to interpret aspects of career adaptability, they are cited in this review solely for comparative purposes and are not part of the theoretical framework. To illustrate

their distinctions and relevance, Table 1 provides a comparative overview of how different theoretical models conceptualize and apply career adaptability across key dimensions.

In summary, this study adopts an integrated approach grounded in CCT and supported by SCCT to investigate how proactive personality, CDMSE, and social support influence career adaptability among Chinese higher education students. CCT serves as the core framework, focusing on personal dispositions and adaptability resources, while SCCT adds value by highlighting contextual influences and self-efficacy beliefs. Together, these perspectives provide a coherent theoretical foundation for exploring how internal and external predictors contribute to career adaptability in a complex and evolving Chinese labour market.

Table 1: Comparison of career adaptability perspectives across theoretical models

Dimension	Career Construction Theory	Social Cognitive Career Theory	Conservation of Resources Theory	Psychological Capital Theory
Focus	Career adaptability as self-regulatory capacity during transitions	Career outcomes shaped by self-efficacy and environmental factors	Resource acquisition and protection to cope with stress and change	Positive psychological resources in career development
Core Components	Adaptive readiness, adaptability resources (concern, control, curiosity, confidence), adapting responses	Self-efficacy, outcome expectations, personal goals, contextual supports	Resources: objects, personal traits, conditions, energies	Self-efficacy, optimism, hope, resilience
Strengths	Directly defines and operationalizes career adaptability; emphasizes proactive self-construction and meaning making	Strong empirical base; accounts for environmental support and agency	Addresses how resource loss/gain affects adaptability in stressful contexts	Highlights the psychological strengths supporting adaptability and motivation
Limitations	Limited discussion of external constraints and support systems	Career adaptability not central; originally focused on decision-making	Lacks focus on developmental or proactive career behaviour	Does not explicitly define or measure career adaptability; overlaps with other traits

3. Research Method

This review followed the structured methodology for systematic literature reviews proposed by Kitchenham et al. (2009). A systematic literature review (SLR) is widely recognised for its ability to provide a rigorous, transparent, and replicable review process, which is essential for synthesizing evidence across fragmented studies (Mohamed Shaffril et al., 2021; Sauer & Seuring, 2023). Compared to traditional narrative reviews, SLR minimizes bias and enhances the reliability and validity of the literature synthesis by adhering to predefined protocols.

This study systematically reviewed peer-reviewed journal articles on career adaptability and its predictors among Chinese higher education students, following the three fundamental stages of a systematic literature review (SLR): planning, execution, and reporting (Kitchenham et al., 2009). The review focused on three primary predictor variables identified in the theoretical framework: proactive personality, career decision-making self-efficacy (CDMSE), and social support. These variables were selected based on their alignment with CCT and SCCT.

3.1 Search Strategy

Following the framework developed by Kitchenham et al. (2009), the systematic literature review in this study proceeded through three main steps: review planning, implementation, and results reporting. This framework enhances transparency, replicability, and methodological rigour. The current study applied this structure to guide the development of research questions, search strategy, screening process, and synthesis of results.

Databases searched included Web of Science and Scopus. Given the presence of multiple dependent variables, combination searches were conducted separately for each predictor variable. To broaden the scope of the search, a set of Boolean logic-based search strings was employed, including: "career adaptability" AND "proactive personality" AND ("China" OR "Chinese"); "career adaptability" AND "career decision-making self-efficacy" AND ("China" OR "Chinese"); and "career adaptability" AND "social support" AND ("China" OR "Chinese").

After the initial search, all retrieved articles were merged, and duplicate records were removed. Scopus and Web of Science were selected as the primary databases due to their wide coverage of high-impact, peer-reviewed journals and their rigorous indexing standards. These databases are commonly used in systematic reviews in education and psychology for their reliability and relevance. However, limiting the search to only two databases may reduce the comprehensiveness of the literature retrieval, and relevant studies indexed elsewhere (e.g., ERIC, CNKI, or ProQuest) may have been inadvertently excluded. This limitation is acknowledged and discussed in the limitations section.

3.2 Inclusion and Exclusion Criteria

The selection of studies was carefully guided by inclusion and exclusion criteria to guarantee their relevance and quality, shown in Table 2.

Table 2: Inclusion and exclusion criteria

Criterion	Eligibility	Exclusion
Document type	Article (automatically filtered by databases: Scopus, WOS)	Non-article (e.g., book chapters, conference papers)
Timeline	Between 2020 and 2025	< 2020
Language	English	Non-English
Research areas	Psychology; social sciences; business management and accounting; arts and humanities; education educational research; sociology	Other than psychology; social sciences; business management and accounting; arts and humanities; education educational research; sociology
Study design	Empirical research (quantitative, qualitative, or mixed methods)	Theoretical papers, conceptual articles, or literature reviews without empirical data
Study population	Higher education students in China (including vocational college and undergraduate students)	Non-student populations, secondary school students, working professionals, or studies outside China

The criteria used for including and excluding studies were broadened to incorporate study design and population characteristics, thereby ensuring that only empirical studies focusing on Chinese higher education students were retained.

Studies were initially screened for relevance by determining whether they examined at least one of the three pre-identified predictor constructs: proactive personality, CDMSE, or social support.

The time frame of 2020–2025 was chosen to capture the most recent and contextually relevant research in the aftermath of the COVID-19 pandemic, which significantly reshaped students' educational experiences, support systems, and career development processes.

3.3 Screening and Selection Process

This systematic review was conducted in alignment with the PRISMA protocol, and the selection procedure is illustrated in Figure 1. The review process began by retrieving records from two major databases: Scopus and Web of Science (WOS). In total, 119 studies were retrieved 43 from Scopus and 76 from WOS. After eliminating duplicate entries, 85 unique publications remained for eligibility assessment.

The next phase involved reviewing the 85 records based on predetermined inclusion and exclusion standards. During this stage, 29 records were excluded for various reasons, including non-article publications (e.g., book sections or

conference proceedings), not written in English, published prior to 2020, or unrelated to the relevant disciplines such as psychology, education, sociology, business, or the social sciences.
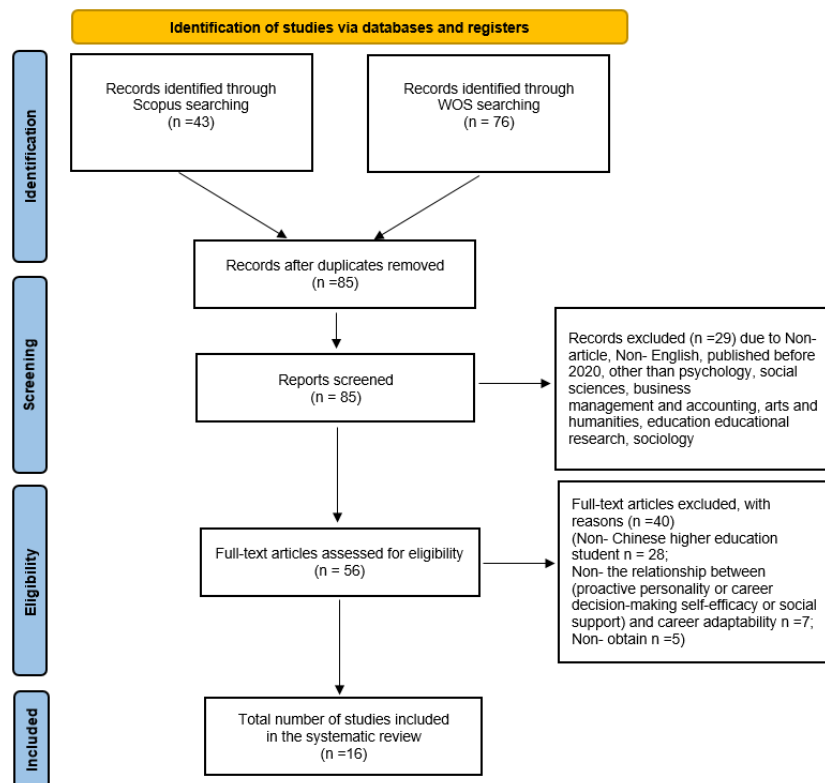
Figure 1: PRISMA Flow Chart

In the third stage, a detailed eligibility screening was conducted on the remaining 56 studies to determine their alignment with the research aims. At this point, 40 articles were excluded for the following reasons: 28 examined populations outside Chinese higher education, 7 did not address the key variables of interest, and 5 had no available full text.

In the end, 16 studies satisfied the inclusion criteria and were incorporated into the qualitative and quantitative comprehensive analysis of this systematic review. These studies provided important insights into identifying and understanding the key predictive factors affecting the career adaptability of Chinese higher education students and helped provide theoretical basis and practical references for strategies, intervention measures, and support frameworks for enhancing students' career development capabilities. A schematic representation of the study selection procedure, including identification, screening, and eligibility assessment, is presented in Figure 1.

Two independent reviewers screened the titles, abstracts, and full texts. Any discrepancies were resolved through discussion until consensus was reached. This process enhanced the transparency and objectivity of study inclusion.

3.4 Summary of Selected Studies
Sixteen studies that adopted quantitative survey methods were retained after evaluating their quality based on methodological rigor, including aspects such as research design, data collection, analysis procedures, and ethical integrity.

Table 3 summarizes the key characteristics of the empirical studies (n = 16) that were selected for analysis in this review.

Table 3. Summary of the 16 empirical studies included in the review

Participant Group	Number of Studies	Remarks
Higher Vocational College Students	4	Students enrolled in 3-year diploma programs in applied and technical fields
General Undergraduate Students	13	Students pursuing 4-year bachelor's degree programs in comprehensive universities
Graduate Students	1	Students enrolled in postgraduate programs, including master's degree programs

Note: These 16 studies met all inclusion criteria outlined in Table 2

Table 3 provides a summary of the participant groups across the included studies. The majority of studies (13) focused on general undergraduate students, primarily those enrolled in 4-year university programs. These students are often the primary focus in employability and career adaptability research due to their direct transition into the labour market. Four studies examined higher vocational college students enrolled in 3-year diploma programs in applied technical majors.

Notably, Song et al. (2024) included participants from diverse educational backgrounds, including high school graduates, junior college students (higher vocational college students), bachelor's degree students (general undergraduate students), and postgraduates (graduate students). All participants in the reviewed studies were Chinese students.

3.5 Coding and Analysis Process
Each selected study was then coded according to the three key constructs of interest. A structured data extraction table was created to capture information such as theoretical frameworks, sample characteristics, measurement instruments, predictor variables, and main findings. To systematically synthesize the selected studies, a theory-driven coding framework was developed based on the conceptual dimensions of Career Construction Theory (CCT) and Social Cognitive Career Theory (SCCT). The analysis followed a structured process involving construct identification, open coding, thematic categorization, and narrative synthesis.

The coding procedure involved a close reading of each article to extract meaningful phrases and patterns relevant to the research objectives. Constructs were then thematically grouped under the three predictor categories. Subthemes were identified—such as mediation effects, directional impact (direct or indirect), and contextual factors—based on how each study operationalized the relationships among variables. To enhance accuracy and consistency, coding was performed by two independent researchers. Discrepancies were discussed and resolved through consensus. A frequency analysis was also conducted to determine the number of studies supporting each predictor's significant effect on career adaptability.

This analytical process informed the summary presented in Table 4, which consolidates the theoretical and empirical contributions of the included studies. The synthesis aimed to highlight common patterns and theoretical alignments, enabling a clearer understanding of how each predictor influences career adaptability among Chinese higher education students.

Table 4: Summary of theoretical and empirical findings on predictors of career adaptability

Variable	Theoretical Foundation	Authors (Year)	Relationship with Career Adaptability	Mechanism of Influence
Proactive Personality	CCT	Ma et al. (2020); Yu et al. (2020); Hu et al. (2021); Wen et al. (2022); Ling et al. (2022); He & Yu (2022); Chen et al. (2023); Chen & Zhang (2024)	Significantly positive influence	Direct impact; enhances future orientation and career exploration; buffers stress and uncertainty
Career Decision-Making Self-Efficacy	SCCT, CCT	Yu et al. (2020); Liu et al. (2023); Li et al. (2023); Song et al. (2024); Xu et al. (2025); Zhang et al. (2025)	Significantly positive influence	Direct effect; acts as a mediator between other influencing factors and career adaptability
Social Support	SCCT, CCT	Yu et al. (2020); Ma et al. (2020); Zhang et al. (2021); Hu et al. (2021); Feng et al. (2023); Song et al. (2024); Chen et al. (2025)	Significantly positive influence	Direct support; acts as a mediator between other influencing factors and career adaptability

Table 4 illustrates that proactive personality, CDMSE, and social support are consistently identified as significant positive predictors of career adaptability. Proactive personality serves as an internal resource that enhances future orientation and initiates exploratory behaviour. CDMSE and social support

(including emotional and informational assistance from family members, peers, and others) play both direct and mediating roles.

4. Results

This section outlines the principal findings derived from the systematic review. By integrating results from multiple empirical studies, it highlights the important role of psychological traits and contextual factors such as proactive personality, career decision-making self-efficacy (CDMSE), and social support in enhancing career adaptability among Chinese higher education students.

A total of 16 empirical studies were analysed, comprising samples from both undergraduate and vocational college students across diverse regions in China. Among these, 9 studies investigated the role of proactive personality, 4 studies focused on CDMSE, and 6 studies examined social support in relation to career adaptability. Several studies addressed more than one predictor variable. These distributions form the basis of the thematic synthesis presented in Sections 4.2.1 to 4.2.3.

4.1 Review analysis

This systematic literature review synthesizes findings from 16 empirical studies examining the factors influencing career adaptability in Chinese higher education students. The evidence demonstrates that individual traits, cognitive beliefs, and environmental support collectively shape students' ability to navigate career-related challenges.

First, proactive personality serves as a stable personal resource that drives career exploration, goal orientation, and adaptive responses to change. Learners demonstrating greater proactivity tend to anticipate future demands, take initiative, and persist in the face of uncertainty.

Second, CDMSE operates as an essential cognitive belief that enhances students' confidence, self-regulation, and effectiveness when navigating career choices and planning processes. It not only contributes directly to career adaptability but also mediates the influence of other factors by strengthening perceived control and agency.

Third, social support acts as a critical external enabler. Emotional, informational, and instrumental support from family members, peers, and educators helps alleviate stress, improve access to career resources, and foster adaptive functioning in the face of career-related uncertainty.

These predictors also interact dynamically. Proactive personality and CDMSE reinforce each other by promoting self-directed behaviour and building confidence in career management. Social support indirectly contributes to career adaptability by enhancing CDMSE and encouraging greater engagement with career development opportunities. The combination of personal motivation, cognitive self-belief, and external support thus forms a multi-layered foundation for building career adaptability.

In summary, understanding the interplay among personal characteristics, cognitive resources, and contextual factors is essential for designing effective,

evidence-based interventions. A holistic approach that strengthens all three dimensions can help Chinese higher education students better meet labour market demands and support their long-term career development.

4.2 Synthesis of Results

To ensure the coherence and logical flow of the overall findings, this study categorizes the selected research results according to three core variables: proactive personality, CDMSE, and social support. These factors have all been confirmed as significant variables influencing the career adaptability of higher education students in China.

4.2.1 Proactive Personality as a Robust Predictor of Career Adaptability

Studies consistently show a robust positive association between proactive personality and career adaptability. Within the framework of Career Construction Theory (CCT), proactive personality is conceptualized as an indicator of adaptability readiness—an individual's psychological preparedness to initiate change, pursue goals, and respond effectively to environmental uncertainty (Savickas & Porfeli, 2012). This disposition plays a direct role in shaping key adaptability capacities. These include the ability to anticipate future tasks (concern), take responsibility (control), explore possibilities (curiosity), and maintain confidence in one's career path.

For example, Hu et al. (2021), He and Yu (2022), and Ling et al. (2022) observed that students exhibiting stronger proactive traits are more inclined to take initiative in coping with career-related uncertainty, thus fostering greater concern and control over their career development. Hu et al. (2021) also noted that proactivity affects adaptability not only directly but also via perceived social support, highlighting the interplay between personal disposition and external context.

Ling et al. (2022) emphasized how intermediate mechanisms, such as future work self-salience and temporal perspective, operate in the pathway from proactivity to adaptability, aligning with the motivational aspects of CCT and showing how proactive individuals imagine and work toward future goals. Similarly, Chen and Zhang (2024) confirmed that individuals with proactive traits actively engage with career challenges and opportunities, which fosters resilience and goal commitment—key mechanisms for adaptability.

Collectively, these findings reinforce CCT's emphasis on agency, self-construction, and the proactive shaping of one's career path, particularly in China's competitive and dynamic educational and employment landscape.

4.2.2 Career Decision-Making Self-Efficacy as a Significant Factor in Career Adaptability

CDMSE is a core psychological factor that contributes to career adaptability, especially within the framework of Social Cognitive Career Theory (SCCT). CDMSE reflects students' belief in their ability to make informed and goal-directed career decisions. This aligns with SCCT's focus on personal agency, behavioural regulation, and contextual influence.

Empirical evidence consistently supports the pivotal role of CDMSE in enhancing career adaptability across the four adaptability resources, such as control, confidence, and concern (Li et al., 2023; Liu et al., 2023; Song et al., 2024; Xu et al., 2025). For instance, Li et al. (2023) demonstrated that CDMSE mediates the link between career adaptability and career choice satisfaction, indicating that greater self-efficacy contributes to both adaptive functioning and positive decision outcomes. Similarly, Liu et al. (2023) showed that vocational education skills positively affect career adaptability through CDMSE, highlighting that skill acquisition alone is insufficient without the belief in one's ability to apply these skills effectively.

Other studies further elaborate on the antecedents of CDMSE. Song et al. (2024) proposed a chain mediation model in which social support enhances CDMSE, which subsequently improves career adaptability and ultimately increases career satisfaction. Xu et al. (2025) found that satisfying core psychological needs—namely autonomy, competence, and relatedness—enhances CDMSE, which in turn facilitates more adaptive responses to career transitions.

Collectively, these findings position CDMSE not only in the capacity of a direct contributor to career adaptability, but also in the role of a central mediating mechanism that links personal, contextual, and motivational factors to adaptive career outcomes. CDMSE supports students in transforming uncertainty into manageable tasks, regulating their behaviour, and sustaining motivation across different phases of career development.

Within China's higher education landscape, where students often encounter intense academic demands, limited career exposure, and evolving employment expectations, CDMSE becomes a critical internal resource. Strengthening students' belief in their decision-making abilities can improve their confidence, increase their engagement in planning and exploration, and ultimately support long-term adaptability and employability.

4.2.3 Social Support as a Positive Contributor to Career Adaptability
A growing body of empirical evidence indicates that social support consistently contributes to enhancing career adaptability among higher education students (Hu et al., 2021; Zhang et al., 2021; Feng et al., 2023; Chen et al., 2025). Both structural and perceived support from family, teachers, and peers contribute to students' capacity to cope with career development tasks.

Hu et al. (2021) and Chen et al. (2025) confirmed that students' perceived support from others has a statistically significant and beneficial impact on adaptive career development. Hu et al. (2021) also demonstrated that social support partially serves as a mediating factor linking proactive personality with career adaptability, indicating its interactive role with individual traits. Moreover, Feng et al. (2023) introduced the concept of role accumulation—such as being a student, peer mentor, or club leader—as a key predictor of perceived support. Their findings suggest that greater involvement in multiple social roles enhances students' access to supportive resources, which in turn promotes adaptability. This

demonstrates a dynamic interplay between social engagement and adaptive capacity.

Zhang et al. (2021), drawing on both social support theory and CCT, emphasized the importance of parental support. They found that informational and emotional support from parents not only directly influences adaptability but also strengthens career identity, which subsequently contributes to adaptability. This illustrates the indirect yet powerful role of family environments in shaping career outcomes—especially within collectivist cultural contexts like China.

Collectively, these studies support the SCCT perspective that contextual support systems shape students' self-efficacy and career expectations. Social support serves not only as a buffer against career-related stress but also as an enabler that strengthens CDMSE and facilitates goal-directed behaviours. The integration of social support with internal cognitive and motivational factors forms a robust foundation for students' career adaptability in diverse educational contexts.

4.3 Cross-Study Patterns and Implications for Future Research

Beyond the core analysis of the three predictor variables, this section presents cross-study patterns derived from the 16 reviewed articles. Although all studies employed quantitative survey methods, a comparative analysis further revealed meaningful differences in participant populations and keyword usage, offering broader implications for future research. Out of the 16 studies, 13 focused on general undergraduate students in comprehensive universities, 4 targeted students in higher vocational colleges pursuing 3-year diploma programs, and only 1 study involved postgraduate students. This distribution suggests a research gap in exploring career adaptability among vocational and graduate-level populations.

Notably, studies on vocational college students tended to emphasize external support systems (e.g., family and peer support) as key contributors to career adaptability, whereas those involving undergraduates in academic institutions focused more on internal psychological resources, such as proactive personality and self-efficacy. Keyword patterns also varied with theoretical alignment. Studies guided by CCT frequently used terms such as "career adaptability," "personal agency," and "career construction," while those informed by SCCT emphasized "career decision-making," "self-efficacy," and "environmental support." These patterns reflect different emphases on internal versus contextual determinants of adaptability.

Together, these findings underscore the need for future studies to (1) balance population sampling across different institutional types, (2) examine underrepresented groups such as vocational college and postgraduate students, and (3) incorporate longitudinal or intervention-based designs to enhance causal understanding. Such efforts can expand the theoretical and practical insights into how different students adapt to increasingly complex career environments.

5. Discussion

This systematic review highlights the critical roles played by students' initiative traits, confidence in career choices, and social support in shaping the career adaptability of students in Chinese higher education. While the findings confirm consistent positive correlations among these variables, this section aims to deepen the understanding of their interrelationships by drawing on the theoretical perspectives of Career Construction Theory and Social Cognitive Career Theory, as well as considering the Chinese cultural context. It also offers practical implications and directions for future research.

5.1 Theoretical Interpretation of the Findings

Proactive personality, career decision-making self-efficacy (CDMSE), and social support are not independent predictors, but rather constitute interrelated psychological and environmental mechanisms rooted in Career Construction Theory (CCT) and Social Cognitive Career Theory (SCCT).

In response to RQ1, the findings demonstrate that proactive personality aligns closely with the concept of adaptability readiness in CCT, which refers to an individual's disposition to take initiative, set goals, and respond effectively to career-related challenges (Savickas, 1997). This disposition fosters four essential domains of career adaptability: concern, control, curiosity, and confidence. These domains respectively reflect future orientation, autonomous choice-making, active vocational exploration, and self-assurance when handling transitions. Students with higher levels of proactivity tend to actively pursue goals, explore opportunities, and exhibit persistence in overcoming obstacles, thus enhancing their overall career adaptability (Ling et al., 2022; Wen et al., 2022; Chen & Zhang, 2024).

In addressing RQ2, CDMSE is strongly supported by SCCT, where self-efficacy is considered a central cognitive mechanism that enables individuals to regulate behaviour, cope with uncertainty, and maintain motivation (Bandura, 1977; Lent et al., 1994). The review shows that students with strong CDMSE demonstrate greater confidence and strategic decision-making in managing their career development. These capabilities are essential in developing control and confidence—two core adaptability resources—thereby underscoring CDMSE's dual role as both a direct and mediating factor in enhancing career adaptability (Liu et al., 2023; Song et al., 2024; Xu et al., 2025).

In response to RQ3, social support plays a dual role within both CCT and SCCT. In CCT, it serves as an external enabler that nurtures adaptability resources, particularly confidence and control, by reinforcing students' belief in their capacity to overcome obstacles. In SCCT, social support is conceptualized as a form of contextual influence that fosters outcome expectations, motivation, and self-regulatory capacity. It contributes to adaptive functioning by offering emotional reassurance, informational guidance, and instrumental help. Furthermore, social support has been shown to enhance CDMSE, thereby indirectly improving career adaptability through cognitive mediation (Hou et al., 2019; Ma et al., 2020; Chen et al., 2025).

In summary, RQ1 is addressed through CCT's focus on proactive personality as a readiness resource; RQ2 is interpreted through SCCT's emphasis on self-efficacy as a cognitive enabler; and RQ3 is explained through the complementary role of social support in both theories as a reinforcing environmental factor. Together, these findings support the dual-theory framework adopted in this review and clarify how internal and external predictors jointly foster career adaptability in Chinese higher education contexts.

5.2 Practical Implications

Beyond theoretical alignment, these findings must be interpreted within the broader socio-cultural and institutional context of China. Cultural norms such as collectivism and filial piety often shape students' career-related behaviours—particularly in how they approach family expectations, personal initiative, and help-seeking. For instance, students from rural or traditional households may prioritize parental approval over personal career aspirations, which may limit proactive behaviour.

Additionally, the urban–rural education gap, coupled with the academic–vocational hierarchy in Chinese higher education, creates disparities in access to career guidance and support services. Recent government policies—such as the expansion of vocational education and innovation-driven employment initiatives—have reshaped the external pressures and support systems that influence students' adaptability.

Based on the findings, the following recommendations are proposed for universities and policymakers:

First, cultivate students' proactive personality traits through experiential learning. Universities can implement project-based courses, entrepreneurship incubators, or cross-disciplinary innovation challenges that encourage initiative, leadership, and future-focused planning (Ling et al., 2022). For example, Ling et al. (2022) found that students engaged in interdisciplinary problem-solving tasks demonstrated greater career control and curiosity. Second, enhance CDMSE via structured, evidence-based interventions. Career development centres should offer simulation-based decision-making workshops, self-assessment tools, and personalized coaching sessions aligned with SCCT constructs. Goal-setting programs and peer mentoring schemes can also support students in building confidence to manage career transitions (Liu et al., 2023).

Third, build inclusive and culturally sensitive support systems. Institutions may develop "career cafés" or peer-support circles, integrate career education into general education curricula, and collaborate with families through information sessions. Programs targeted at rural or low-income students should include emotional and informational support components, which have been shown to significantly improve career adaptability (Ma et al., 2020; Song et al., 2024). Taken together, these interventions should be embedded within a multi-level career support framework, starting from first-year orientation to graduation transition, ensuring sustained development of internal strengths and external resources across the student lifecycle.

5.3 Limitations

This study has several limitations. First, although Scopus and Web of Science were chosen for their academic rigour and comprehensive coverage, restricting the search to these two databases may have excluded relevant studies from platforms such as ERIC, CNKI, or ProQuest.

Second, only empirical studies published in English between 2020 and 2025 were included. While this ensured timeliness and relevance, earlier foundational works and non-English studies may have been overlooked. Third, the review focused solely on Chinese higher education students, limiting the generalizability of findings. Broader demographic and cross-national studies are needed to enhance external validity. Fourth, no formal quality appraisal tools (e.g., JBI Checklist, MMAT, CASP) were used to assess the methodological rigor of included studies. Although empirical relevance was ensured, the lack of critical appraisal limits the ability to evaluate the quality and strength of evidence.

Moreover, several methodological limitations were noted across the included studies. Most used cross-sectional designs, which restrict causal interpretation. Samples were predominantly composed of general undergraduate students, with limited inclusion of vocational or postgraduate populations. While many studies cited CCT or SCCT, some lacked deeper integration with these theoretical frameworks.

5.4 Future Research Directions

While this review integrates robust empirical evidence on the factors influencing career adaptability in the context of Chinese tertiary education, several critical gaps remain that warrant future research attention. First, longitudinal research is needed to examine the developmental trajectories of proactive personality, CDMSE, and social support, and to explore their evolving interplay in shaping career adaptability. Although many studies confirm cross-sectional associations (Wen et al., 2022; Ling et al., 2022), few have examined how these relationships unfold developmentally or in response to interventions.

Second, future research should investigate cultural moderators that are particularly salient in the Chinese context. For instance, cultural norms such as filial piety, power distance, and collectivist values may influence students' willingness to express proactive behaviours or seek social support. Studies such as those by Song et al. (2024) and Liu et al. (2023) suggest that socio-cultural variables could condition how psychological traits translate into career outcomes.

Third, demographic variables such as gender, grade level, and rural-urban background deserve greater analytical attention. Ma et al. (2020) found that male nursing students exhibited greater challenges in accessing adaptive career resources, suggesting that gendered perceptions and expectations may differentially career readiness. Similarly, research by Wen et al. (2022) highlighted how pre-service teachers' experiences of career adaptability differed depending on institutional and regional support systems.

Finally, intervention-based studies are urgently needed. While existing literature identifies individual and environmental predictors, few studies have tested the effectiveness of multidimensional programmes designed to improve proactive personality, enhance CDMSE, and foster supportive networks simultaneously.

Future research grounded in culturally contextualized, methodologically rigorous, and practice-informed approaches will be critical in moving beyond correlation and towards actionable models of career adaptability development.

6. Conclusion

This review explored three key research questions regarding how proactive personality, career decision-making self-efficacy (CDMSE), and social support are associated with career adaptability among Chinese higher education students. The findings confirm that all three predictors significantly influence students' career adaptability, both independently and through complex psychological and contextual mechanisms. Proactive personality fosters initiative and long-term goal orientation; CDMSE enhances self-confidence and decision-making competence; and social support provides essential external resources that buffer stress and encourage engagement in career development.

Given the increasing complexity and uncertainty of global employment, fostering career adaptability has become a critical goal for higher education. Institutions should adopt integrated strategies that combine curriculum reform, experiential learning, and support system enhancement. Interdisciplinary projects, reflective portfolios, and real-world simulations can cultivate proactive attitudes and strengthen CDMSE. Simultaneously, inclusive support systems should be tailored to meet the diverse needs of students—for instance, institutional services for those with limited resources, and psychological empowerment or peer network development for students in competitive settings. These interventions not only support individual readiness but also contribute to broader educational equity.

This study also emphasizes that proactive personality is malleable and can be developed through contextual and institutional design. Creating environments that encourage exploration, autonomy, and resilience is essential for sustaining adaptability amid uncertainty. Future research should employ longitudinal and intervention-based methods to uncover causal pathways, explore subgroup differences, and improve generalizability across cultural contexts. Ultimately, strengthening career adaptability is not only an educational imperative but also a strategic priority for cultivating a generation of flexible, responsible, and resilient talent capable of navigating an unpredictable global future.

7. References

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