



Exploring the Mediating Role of Career Adaptability in the Link Between Career Self-Efficacy and Career Decision-Making Among Chinese College Students

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Abstract

Background and Aim: Career decision-making is a major developmental challenge for university students as they transition from academic life to the professional workforce. Making effective career decisions requires not only confidence in one's abilities but also the psychological resources necessary to adapt to changing career environments. Although career decision-making self-efficacy (CDSE) has been widely recognized as an important factor influencing career-related decisions, the underlying psychological mechanisms through which CDSE affects career decision-making strength (CDMS) remain insufficiently understood. Grounded in Career Construction Theory, this study aims to investigate the mediating role of career adaptability (CA) in the relationship between CDSE and CDMS among Chinese undergraduate students. The research seeks to explain how students' confidence in their career decision-making abilities can be transformed into stronger and more decisive career actions through the development of adaptability resources.

Materials and Methods: This study employed a quantitative cross-sectional survey design to collect data from 236 Chinese undergraduate students. Standardized and validated measurement scales were used to assess career decision-making self-efficacy, career adaptability, and career decision-making strength. The questionnaire evaluated students' confidence in career-related tasks, their ability to adapt to career challenges, and their level of decisiveness in making career choices. Data analysis was conducted using Structural Equation Modeling (SEM) to examine the proposed mediation relationships among the variables. In addition, bootstrapping analysis was applied to test the significance of indirect effects and confirm the mediation mechanism. This analytical approach ensured the reliability and robustness of the mediation findings.

Results: The findings revealed that career decision-making self-efficacy significantly and positively predicted career adaptability, indicating that students with stronger confidence in their career abilities were more capable of adapting to career-related challenges and transitions. Furthermore, career adaptability significantly predicted career decision-making strength, demonstrating that adaptable students were more likely to make clear, confident, and effective career decisions. More importantly, when career adaptability was included in the structural model, the direct relationship between career decision-making self-efficacy and career decision-making strength became statistically non-significant. Bootstrapping analysis further confirmed a full mediation effect, indicating that career adaptability completely transmitted the influence of self-efficacy on career decision-making strength. These findings highlight the central role of adaptability as a psychological mechanism linking career confidence with decisive career behavior.

Conclusion: This study concludes that career adaptability functions as a critical psychological resource that fully mediates the relationship between career decision-making self-efficacy and career decision-making strength among undergraduate students. The findings suggest that self-confidence alone may not directly lead to effective career decisions unless students also possess the adaptability skills required to manage career uncertainty and change. Therefore, career guidance and counseling programs should place greater emphasis on developing students' adaptability competencies, including concern, control, curiosity, and confidence, to strengthen career decision-making outcomes and support successful career development.

Keywords: Career Decision-Making Self-Efficacy (CDSE); Career Adaptability (CA); Career Decision-Making; Structural Equation Modeling (CDMS); Chinese Undergraduates

Introduction

In recent years, the expansion of higher education in China has led to a significant increase in the number of university graduates. According to the 2025 National Conference on Employment and Entrepreneurship for College Graduates, the number of college graduates in China is projected to reach 12.22 million in 2025, marking a historic high. This surge has been accompanied by structural

unemployment and heightened employment anxiety, stemming from a lag in job creation. Similarly, this phenomenon is not unique to China but reflects a global trend. Countries such as South Korea, Japan, and several European nations have experienced comparable challenges with graduate overproduction and skills mismatches in their labor markets (OECD, 2023). However, what distinguishes the Chinese context is the scale and rapid pace of this expansion, making career decision-making research particularly urgent. Within this context, the quality and effectiveness of career decision-making among undergraduates are not only pivotal to individual career development but also reflect the alignment between higher education outputs and labor market demands.

Previous studies have highlighted that, beyond external opportunities and institutional frameworks, internal psychological resources play an increasingly vital role in shaping students' career choices and development outcomes (Savickas, 2013; Tolentino et al., 2014). Among these resources, Career Decision-Making Self-Efficacy (CDSE) has been identified as a key determinant influencing individuals' career exploration, goal setting, and decision-making behaviors (Bandura, 1997; Hamzah et al., 2021). Notably, while Western research has extensively examined CDSE in individualistic cultures, there remains a limited understanding of how this construct operates within collectivistic cultural contexts like China, where family expectations and social conformity significantly influence career choices. In recent years, career adaptability has garnered significant attention as a core psychosocial resource for navigating career uncertainties. It encompasses four dimensions: concern, control, curiosity, and confidence (Savickas & Porfeli, 2012; Levin & Lipshits-Braziler, 2021). Empirical evidence suggests that CDSE not only directly impacts career decision-making capabilities but may also exert indirect effects through career adaptability (Ginevra et al., 2016; Chen et al., 2023). For instance, Salim et al. (2023) found that CDSE fully mediates the relationship between social support and career adaptability. Similarly, studies by Jia et al. (2020) and Wang et al. (2020) indicate that career adaptability can buffer the adverse effects of uncertainty on decision-making difficulties.

Despite these advances, several critical research gaps remain unaddressed. First, the mechanisms through which CDSE influences career decision-making strength remain insufficiently understood, particularly regarding the mediating role of career adaptability. Second, there is limited empirical evidence examining these relationships within the Chinese cultural context, where collectivistic values may influence the relative importance of different psychological resources. Third, while previous studies have established correlations between these variables, few have employed comprehensive mediation analyses to uncover the underlying psychological pathways. Grounded in Career Construction Theory (CCT), this study aims to investigate the mechanisms through which self-efficacy influences career decision-making among Chinese college students, with a particular focus on the mediating role of career adaptability. By addressing these research gaps, this study seeks to contribute both theoretical insights and practical implications for career counseling interventions in higher education settings.

Objectives

1. To examine the relationships among career decision-making self-efficacy (CDSE), career adaptability (CA), and career decision-making strength (CDMS) among Chinese undergraduate students.
2. To test whether career adaptability mediates the relationship between CDSE and CDMS using structural equation modeling.
3. To validate the mediating mechanism proposed in Career Construction Theory within the Chinese higher education context.

Literature review

This literature review examines existing research on career decision-making self-efficacy, career adaptability, and career decision-making strength to identify theoretical foundations and knowledge gaps that justify the current study. A comprehensive search was conducted across major academic databases, including PsycINFO, Web of Science, and SAGE, using keywords such as "career decision-making self-efficacy," "career adaptability," "Career Construction Theory," and "mediation analysis." The review



focuses on three primary areas of research while highlighting gaps in understanding the mediating mechanisms within the Chinese cultural context.

1. Career Decision-Making Self-Efficacy and Career Decision-Making Outcomes

Career Decision-Making Self-Efficacy (CDSE) refers to an individual's belief in their capability to successfully engage in tasks related to career exploration, decision-making, and development (Betz, 2004). Extensive research has established CDSE as a crucial predictor of career-related behaviors. High levels of CDSE have been shown to positively influence individuals' engagement in career exploration activities, the setting of career goals, and the overall decisiveness in making career-related choices (Lent & Brown, 2019; Bandura, 1997).

However, most existing studies have focused on direct relationships between CDSE and career outcomes, with limited attention to the underlying psychological mechanisms that explain how self-efficacy beliefs translate into actual career behaviors. Furthermore, the majority of CDSE research has been conducted in Western, individualistic cultural contexts, leaving a significant gap in understanding how these relationships operate within collectivistic cultures like China, where family expectations and social conformity play prominent roles in career decisions.

2. Career Adaptability as a Psychological Resource and Mediating Mechanism

Career adaptability is recognized as a critical psychological resource enabling individuals to navigate career choices and transitions, exhibiting significant predictive validity for career-related behaviors (Savickas, 2013). Within the framework of Career Construction Theory (CCT), career adaptability encompasses four dimensions: concern, control, curiosity, and confidence (Savickas & Porfeli, 2012). Research has consistently demonstrated positive correlations between career adaptability and various career outcomes.

Career Adaptability and Decision-Making: Extensive empirical research has consistently demonstrated a positive correlation between career adaptability and career decision-making ability. For instance, Levin and Lipshits-Braziler (2021) found that the 'control' and 'confidence' dimensions of career adaptability significantly enhance decision-making confidence. In a study focusing on Chinese college students, Wang et al. (2020) revealed that students with higher levels of career adaptability experienced fewer career decision-making difficulties, particularly among those with perfectionist tendencies.

Career Adaptability as a Mediator: Within CCT, career adaptability is conceptualized as a critical psychosocial resource that bridges individual cognitive beliefs and career-related behaviors, often serving as a mediating mechanism (Savickas, 2013). Empirical studies have demonstrated that CDSE can indirectly influence career decision-making behaviors through career adaptability. For instance, Salim et al. (2023) found that while peer support positively affects CDSE, its impact on career readiness behaviors is fully mediated by career adaptability. Similarly, Zhang et al. (2024) reported that among medical students, the effect of positive coping styles on career adaptability is entirely mediated by CDSE.

Despite these advances, there remains insufficient empirical evidence specifically examining the mediating role of career adaptability in the CDSE-career decision-making strength relationship, particularly using comprehensive structural equation modeling approaches.

3. Career Construction Theory and Cultural Context

Career Construction Theory provides the theoretical foundation for understanding how individuals construct their careers through adaptive responses to vocational development tasks (Savickas, 2013). The theory posits that career adaptability serves as a key psychosocial resource that enables individuals to manage career transitions and challenges effectively. However, most CCT-based research has been conducted in Western contexts, with limited validation in Asian cultural settings.

Cultural factors significantly influence career development processes. In collectivistic cultures like China, career decisions are often influenced by family expectations, social status considerations, and group harmony, which may alter the relative importance of individual psychological resources like self-efficacy and adaptability. This cultural gap represents a significant limitation in the current literature and highlights the need for culturally-specific research.

4. Summary and Knowledge Gaps

The literature review reveals several critical knowledge gaps that this study addresses:

1. Mechanism Gap: While research has established relationships between CDSE, career adaptability, and career outcomes, the specific mediating mechanisms through which CDSE influences career decision-making strength remain insufficiently understood.

2. Cultural Gap: There is limited empirical evidence examining these relationships within the Chinese cultural context, where collectivistic values may influence the relative importance of different psychological resources.

3. Methodological Gap: Few studies have employed comprehensive mediation analyses using structural equation modeling to uncover the underlying psychological pathways in these relationships.

Based on this literature analysis, the current study proposes that career adaptability serves as a crucial mediating mechanism through which CDSE influences career decision-making strength (CDSE → CA → CDMS). This pathway suggests that individuals with higher self-efficacy beliefs develop stronger adaptability resources, which in turn enhance their capacity for effective career decision-making. By addressing these gaps, this study contributes both theoretical insights to Career Construction Theory and practical implications for career counseling interventions in higher education settings.

Conceptual Framework

Building upon the aforementioned literature review and theoretical analysis, this study constructs a structural model encompassing three core variables: Career Decision-Making Self-Efficacy (CDSE), Career Adaptability (CA), and Career Decision-Making Strength (CDMS). CDSE, defined as an individual's belief in their capability to successfully perform tasks related to career decision-making, has been empirically validated as a significant predictor of career exploration, goal setting, and decision-making behaviors (Bandura, 1997; Hamzah et al., 2021). Meanwhile, CA serves as a psychosocial resource enabling individuals to cope with career-related uncertainties and challenges, and it has been widely recognized for its mediating role between cognitive variables and behavioral outcomes (Savickas, 2013; Salim et al., 2023).

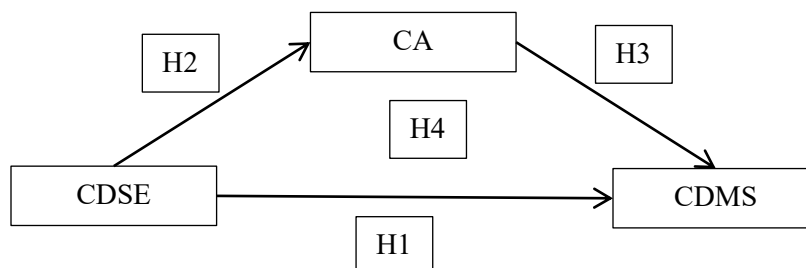


Figure 1 Conceptual Framework

Variables:

- CDSE = Career Decision-Making Self-Efficacy
- CA = Career Adaptability
- CDMS = Career Decision-Making Strength

Hypotheses:

- H1: CDSE → CDMS (direct effect)
- H2: CDSE → CA
- H3: CA → CDMS
- H4: CA mediates CDSE → CDMS relationship

Based on this theoretical framework, the following hypotheses are proposed:

H1: Career Decision-Making Self-Efficacy positively predicts Career Decision-Making Ability.

H2: Career Decision-Making Self-Efficacy positively predicts Career Adaptability.

H3: Career Adaptability positively predicts Career Decision-Making Ability.



H4: Career Adaptability mediates the relationship between Career Decision-Making Self-Efficacy and Career Decision-Making Ability.

Methodology

1. Research Design and Participants

This study employed a cross-sectional survey design, utilizing stratified purposive sampling to collect data through questionnaires. Data analysis was conducted using AMOS software.

Sample Selection Method and Representativeness:

The sampling strategy was designed to ensure representativeness across different types of higher education institutions in China. A stratified purposive sampling approach was employed with the following criteria:

Geographic Distribution: Universities were selected from three major regions in China (Eastern, Central, and Western regions) to ensure geographic diversity and represent varying levels of economic development.

Institutional Types: Four categories of universities were included to reflect the diversity of Chinese higher education: (1) National "Double First-Class" universities (top-tier research universities), (2) Provincial "Double First-Class" universities (regional key universities), (3) General public universities (mainstream institutions), and (4) Private universities (emerging sector).

Student Distribution: Participants were recruited across different academic years (freshmen to seniors) to capture varying levels of career development and decision-making experience.

Inclusion Criteria: Full-time undergraduate students aged 18-25 who voluntarily agreed to participate and provided informed consent.

Exclusion Criteria: Part-time students, graduate students, and international students were excluded to maintain sample homogeneity.

Sample Size Determination:

To determine the appropriate sample size for regression analysis, Tabachnick and Fidell (2007) proposed the formula: $N \geq 50 + 8m$, where m represents the number of independent variables. For factor analysis or structural equation modeling, it is recommended to have a sample size ranging from 5 to 10 times the number of items. Given that the questionnaire comprised 47 items, the minimum required sample size would be 235 participants.

In this study, 240 students were recruited. After excluding four invalid responses, 236 valid questionnaires were retained, yielding a response rate of 98.3%, which meets the minimum sample size requirement.

Participant Characteristics:

Among the 236 participants, 80 were male (33.8%) and 156 were female (66.2%). Regarding the type of institution, 40 students (16.9%) were from national "Double First-Class" universities, 45 (19.1%) from provincial "Double First-Class" universities, 100 (42.4%) from public universities, and 41 (17.4%) from private universities. In terms of academic year, 17 students (7.2%) were freshmen, 95 (40.25%) sophomores, 97 (41.1%) juniors, and 27 (11.4%) seniors. This distribution reflects the broader characteristics of Chinese undergraduate populations, with a slight overrepresentation of female students, which is consistent with current enrollment trends in Chinese higher education.

2. Measurement Instruments

2.1 Measurement of Career Decision-Making Self-Efficacy

This study employed the General Self-Efficacy Scale (GSE) developed by Matthias Jerusalem and Ralf Schwarzer in 1981 to assess participants' career decision-making self-efficacy. The GSE is a unidimensional self-report instrument comprising 10 items, each rated on a 4-point Likert scale ranging from 1 ("Not at all true") to 4 ("Exactly true"). The total score ranges from 10 to 40, with higher scores indicating greater self-efficacy.

Translation and Cultural Adaptation Process:



The original German version of the GSE was translated into Chinese following the standard back-translation procedure recommended by Brislin (1970). The translation process involved: (1) Forward translation by two independent bilingual psychologists, (2) Synthesis of the two forward translations, (3) Back-translation by a native English speaker fluent in Chinese, (4) Expert committee review involving three career counseling experts and two psychometricians to ensure conceptual equivalence, and (5) Pre-testing with 30 Chinese undergraduate students to identify comprehension difficulties and cultural appropriateness.

Cultural adaptations were minimal as the GSE items focus on general self-efficacy beliefs that are conceptually relevant across cultures. However, minor linguistic modifications were made to ensure clarity in the Chinese context, such as using more familiar terminology for "capabilities" and "challenges" that resonate with Chinese students' experiences.

The GSE has been extensively validated in Chinese populations and has demonstrated robust psychometric properties across diverse cultural contexts. In the current study, the GSE exhibited excellent internal consistency, with a Cronbach's alpha coefficient of 0.931.

Table 1 Career Decision-Making Self-Efficacy Scale

Dimension	Code	Title
Career Decision- Making Self- Efficacy	CDSE1	I can always solve problems if I try my best.
	CDSE2	I can stick to my choices even when I encounter resistance in my career decisions.
	CDSE3	I am confident that I can stick to my ambitions and reach my goals through hard work.
	CDSE4	I am confident that I can effectively cope with anything that comes my way.
	CDSE5	With my talents, I can cope with the unexpected.
	CDSE6	If I put in the necessary effort, I will be able to solve the most difficult problems.
	CDSE7	I can face professional challenges calmly because I believe in my ability to cope.
	CDSE8	When faced with a problem, I can usually find several solutions.
	CDSE9	When there is trouble, I can usually think of some way to cope.
	CDSE10	No matter what happens to me, I can handle it.

2.2 Measurement of Career Adaptability

This study utilized the Career Adaptability Scale revised by Taiwanese scholar Wu Shu-Wan (2008), which was originally adapted from Savickas and Porfeli's (2012) Career Adapt-Abilities Scale. Originally comprising 21 items, the scale was refined to 18 items following reliability analysis, during which items 4, 11, and 13 were removed due to low item-total correlations and improvements in Cronbach's alpha upon their deletion.

Cultural Adaptation and Validation:

Wu's (2008) revision was specifically designed for Chinese-speaking populations and incorporated cultural considerations relevant to Confucian values and collectivistic orientations common in Chinese societies. The scale items were reviewed by career counseling experts familiar with mainland Chinese cultural contexts to ensure appropriateness for mainland Chinese undergraduate students. Minor terminological adjustments were made to replace Taiwan-specific expressions with mainland Chinese equivalents (e.g., "workplace" terminology).

The final version assesses four dimensions consistent with Savickas' theoretical framework: career confidence (6 items), career curiosity (4 items), career concern (4 items), and career control (4 items). Each item is rated on a 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). In the current study, the scale demonstrated excellent internal consistency, with a Cronbach's alpha coefficient of 0.938.



Table 2 Career adaptability scale

Dimension	Code	Title
Career Confidence	CA1	1. When facing career choices, I can make appropriate decisions.
	CA2	2. I believe I will stick to the career I want and strive to realize it.
	CA3	3. I think about the direction and development of my future career.
	CA4	4. When I encounter career doubts, I will try to find ways to understand.
	CA5	5. In the face of future challenges, I will keep working hard.
	CA6	6. When facing an uncertain future, I will seek help from others.
Career Curiosity	CA7	7. I actively participate in activities that prepare me for future study or work.
	CA8	8. I think I am a useful person.
	CA9	9. I feel hesitant about planning for my future career and making career decisions.
	CA10	10. I use books about the future to enhance my employability.
Career Concern	CA11	11. I am confident in the development of my future career.
	CA12	12. I believe that my future career choices will be influenced by my interests and abilities.
	CA13	13. I believe I can overcome obstacles and difficulties in my future career.
	CA14	14. I often set goals to fulfill my career plans.
Career Control	CA15	15. I will figure out what I want to do in the future.
	CA16	16. I will learn about the characteristics of the job I want in the future.
	CA17	17. I take the relationship between study and future career seriously.
	CA18	18. I care about the relationship between what I am learning now and my future career.

2.3 Measurement of Career Decision-Making Ability

This study employed the College Students' Career Decision-Making Scale developed by Hu Qiuli (2011), which was specifically designed for Chinese undergraduate populations. The scale comprises 19 items across three dimensions and utilizes a 5-point Likert scale for responses ranging from 1 ("Not important at all") to 5 ("Extremely important").

Cultural Relevance and Validation:

The scale was developed based on extensive qualitative research with Chinese undergraduate students and incorporates cultural values specific to the Chinese employment context, such as emphasis on job security, social status, and family expectations. The three dimensions reflect priorities commonly observed among Chinese job seekers: prestige (social status and recognition), security (stability and benefits), and development (personal growth and advancement opportunities).

The scale has been validated across multiple Chinese university samples and demonstrates strong construct validity and reliability. In the current study, the scale demonstrated excellent internal consistency, with a Cronbach's alpha coefficient of 0.958.

Table 3 Career decision-making scale

Dimension	Code	Title
Prestige Dimension	CDMS1	1. I expect to have easy access to a rewarding career. 2. I expect my future workplace to have visibility.



Dimension	Code	Title
		3. I expect to gain social status in my career.
		4. I expect the level of my future workplace.
		5. The economic status I want to have in my career.
		6. I want promotion opportunities in my future career.
		7. I want my future career to have the opportunity to go abroad.
		8. I require a large size for the future workplace.
		9. I expect that I will work in a big city in the future.
		10. I want my future job to provide social security and welfare benefits.
		11. I want my future career to be stable.
Security Dimension	CDMS2	12. I want my future job to solve the problem of housing and separation.
		13. I ask for a good working atmosphere in my future workplace.
		14. I want my future job to be in line with my interests and career goals.
		15. I want my major to be useful in my future job.
		16. I want my future job to give me full play to my talents.
		17. I want my future job to have a system of fair competition and equal opportunities.
		18. I would like my future job to have flexibility, decision-making autonomy, and other autonomy requirements.
		19. I want my future job to provide me with opportunities for further education.

2.4 Data Collection Procedure

Data collection was conducted between September and November 2024. University liaisons at each participating institution facilitated access to student populations. Participants were recruited through classroom announcements and online university portals. Informed consent was obtained from all participants, and confidentiality was assured. The questionnaire was administered online using a secure survey platform, taking approximately 15-20 minutes to complete. Participation was voluntary, and no incentives were provided to maintain response authenticity.

2.5 Data Analysis

Data analysis was conducted using SPSS 28.0 for descriptive statistics and preliminary analyses, and AMOS 28.0 for structural equation modeling. The analytical approach included: (1) Descriptive statistics and correlation analysis, (2) Confirmatory Factor Analysis (CFA) to assess measurement model fit, (3) Structural equation modeling to test hypothesized relationships, and (4) Bootstrapping analysis with 5,000 resamples to test mediation effects and generate bias-corrected confidence intervals.

Results

1. Measurement Model Assessment

A Confirmatory Factor Analysis (CFA) was conducted to assess the construct validity of the three core variables: Career Decision-Making Self-Efficacy (CDSE), Career Adaptability (CA), and Career Decision-Making Strength (CDMS). The measurement model demonstrated satisfactory fit indices and adequate psychometric properties.

Model Fit Indices: The CFA results indicated acceptable model fit: $\chi^2/df = 3.328$, CFI = 0.942, IFI = 0.942, NNFI = 0.932, GFI = 0.893, AGFI = 0.859, RMSEA = 0.077, SRMR = 0.053. These indices collectively suggest that the measurement model exhibits reasonable fit with the observed data.

Reliability and Validity: All constructs demonstrated excellent internal consistency with Composite Reliability (CR) values exceeding 0.70 (CDSE: CR = 0.931, CA: CR = 0.912, CDMS: CR = 0.885). Average Variance Extracted (AVE) values were above 0.50 for all constructs (CDSE: AVE = 0.575, CA:



AVE = 0.722, CDMS: AVE = 0.721), confirming convergent validity. Standardized factor loadings ranged from 0.689 to 0.931, with most items exceeding the 0.70 threshold.

Discriminant Validity: The Fornell-Larcker criterion and HTMT ratios confirmed adequate discriminant validity among constructs. Correlation coefficients between constructs ranged from 0.357 to 0.657, with confidence intervals remaining below the 0.85 threshold, indicating that the constructs are empirically distinct.

2. Structural Model and Hypothesis Testing

Structural equation modeling was employed to test the hypothesized relationships among CDSE, CA, and CDMS. The analysis examined both direct relationships and the mediating role of career adaptability.

Table 4 Hypothesis Testing Results Summary

Hypothesis	Path	Estimate	S.E.	C.R.	P-value	95% CI	Result
H1: CDSE → CDMS (Direct)	CDSE → CDMS	0.036	0.056	0.656	0.512	[-0.107, 0.192]	Not Supported
H2: CDSE → CA	CDSE → CA	0.580	0.051	11.297	<.001	[0.512, 0.769]	Supported
H3: CA → CDMS	CA → CDMS	0.440	0.068	6.440	<.001	[0.356, 0.640]	Supported
H4: Mediation (CDSE → CA → CDMS)	Indirect Effect	0.255*	-	-	<.001	[0.136, 0.424]	Supported

Note: Indirect effect calculated as the product of H2 and H3 path coefficients ($0.580 \times 0.440 = 0.255$)

Bootstrap Analysis: To validate the mediation mechanism, bootstrapping analysis with 5,000 resamples was conducted. The results confirmed a significant indirect effect of CDSE on CDMS through CA (95% CI: [0.136, 0.424]), while the direct effect became non-significant (95% CI: [-0.107, 0.192]). The total effect remained significant (95% CI: [0.149, 0.467]), indicating full mediation.

3. Summary of Key Findings

The structural equation modeling analysis revealed three critical findings:

No Direct Effect (H1 rejected): CDSE did not significantly predict CDMS when CA was included in the model ($\beta = 0.036$, $p = .512$).

Significant Predictive Relationships (H2 and H3 supported): CDSE significantly predicted CA ($\beta = 0.580$, $p < .001$), and CA significantly predicted CDMS ($\beta = 0.440$, $p < .001$).

Full Mediation Effect (H4 supported): Career adaptability completely mediates the relationship between CDSE and CDMS, as evidenced by the significant indirect effect and non-significant direct effect.

These findings indicate that career adaptability serves as a crucial psychological bridge through which career decision-making self-efficacy influences career decision-making strength among Chinese undergraduate students.

Discussion

This study examined the mediating role of career adaptability in the relationship between career decision-making self-efficacy and career decision-making strength among Chinese undergraduate students. The findings provide important insights into career development mechanisms while revealing cultural considerations specific to the Chinese context.

The results confirmed that career adaptability fully mediates the relationship between career decision-making self-efficacy and career decision-making strength. This finding extends Career Construction Theory by demonstrating that self-efficacy beliefs influence career decision-making primarily through the development of adaptive capabilities rather than through direct pathways. The complete mediation effect suggests that in the Chinese cultural context, individual confidence alone is insufficient



for effective career decision-making. Students must develop comprehensive adaptability skills—including concern, control, curiosity, and confidence—to navigate complex social and familial expectations that characterize Chinese career decision-making processes (Wang et al., 2020; Chen et al., 2023).

The strong relationship between career decision-making self-efficacy and career adaptability ($\beta = 0.580$) aligns with Social Cognitive Theory and supports previous research by Hamzah et al. (2021), who identified self-efficacy as a robust predictor of adaptability. However, the complete absence of direct effects from self-efficacy to decision-making strength differs from Western studies, where partial mediation is more commonly observed (Lent & Brown, 2019). This discrepancy may reflect cultural differences in career decision-making processes, where Chinese students face greater external pressures from family expectations, social status considerations, and economic uncertainties that require enhanced adaptability skills.

The Chinese cultural context presents unique factors that may amplify the importance of career adaptability. Filial piety creates pressure to balance personal interests with family expectations, while an intense social comparison culture and rapid economic transformation require continuous adaptation. These cultural pressures may explain why adaptability becomes a more proximal predictor of career decision-making effectiveness than self-efficacy alone in this population.

However, several limitations should be acknowledged. The cross-sectional design limits causal inferences, and the exclusive reliance on self-report measures may introduce common method bias. While Career Construction Theory proved applicable in the Chinese context, the complete mediation pattern suggests that cultural adaptations of the theory may be necessary to fully capture collectivistic decision-making processes. Future research should employ longitudinal designs and examine cultural moderators more explicitly.

From a practical perspective, these findings suggest that Chinese universities should prioritize adaptability-centered interventions over traditional self-efficacy-building approaches. Career education programs should acknowledge family and social influences while developing students' capabilities to navigate cultural pressures effectively. Such interventions may be particularly important given China's projected 12.22 million graduates in 2025 and increasing employment competition.

Conclusion

This study examined the mediating role of career adaptability in the relationship between career decision-making self-efficacy and career decision-making strength among Chinese undergraduate students. Using structural equation modeling with a sample of 236 participants, the findings provide compelling evidence for the pivotal role of career adaptability in career development processes.

The results confirmed that career adaptability fully mediates the relationship between career decision-making self-efficacy and career decision-making strength. Specifically, career decision-making self-efficacy significantly predicted career adaptability ($\beta = 0.580$, $p < .001$), which in turn significantly predicted career decision-making strength ($\beta = 0.440$, $p < .001$). When career adaptability was included in the model, the direct effect of self-efficacy on decision-making strength became non-significant ($\beta = 0.036$, $p = .512$), indicating complete mediation. Bootstrapping analysis further confirmed this mediation effect with a significant indirect effect (95% CI: [0.136, 0.424]).

These findings contribute to Career Construction Theory by demonstrating that adaptability serves as a crucial psychological bridge through which self-efficacy beliefs influence career behaviors. The complete mediation pattern observed in this Chinese sample suggests that cultural factors may influence how psychological resources translate into career outcomes. In the Chinese context, where career decisions involve complex family and social considerations, adaptability skills become essential for navigating these cultural dynamics effectively.

The study validates the applicability of Career Construction Theory in Chinese higher education contexts while revealing unique cultural considerations. The findings suggest that fostering career adaptability—encompassing concern, control, curiosity, and confidence—may be more effective than



traditional self-efficacy-building approaches in preparing Chinese students for career decision-making challenges.

Suggestions

Based on the research findings, several recommendations emerge for both practical applications and future research directions.

1. Practical Recommendations

Higher education institutions should prioritize the development of career adaptability over traditional confidence-building approaches in their career services. The complete mediation effect suggests that self-efficacy alone is insufficient for effective career decision-making among Chinese students. Universities should implement comprehensive career education programs that systematically develop students' adaptive capabilities through experiential learning, situational simulations, and real-world problem-solving exercises.

Career counseling centers should redesign their services to focus on the four dimensions of career adaptability. Programs should help students develop career concerns through future orientation activities, enhance career control through goal-setting exercises, foster career curiosity through exploration opportunities, and build career confidence through skill development workshops. These interventions should be culturally sensitive, acknowledging the role of family expectations and social pressures in Chinese career decision-making processes.

Educational policymakers should consider integrating adaptability-centered career development into national curriculum guidelines. Given China's projected 12.22 million graduates in 2025 and increasing employment competition, systematic development of career adaptability emerges as a critical strategy for enhancing graduate employability and reducing employment anxiety.

2. Future Research Directions

Several important research avenues emerge from this study's findings. Longitudinal research is needed to examine how the relationships among career decision-making self-efficacy, career adaptability, and career decision-making strength evolve over time and across different developmental stages. Such studies would provide deeper insights into the causal mechanisms underlying these relationships.

Cross-cultural comparative research should investigate whether the complete mediation pattern observed in this Chinese sample generalizes to other cultural contexts. Studies comparing collectivistic and individualistic cultures would enhance understanding of how cultural values moderate career development mechanisms and inform culturally-adapted theoretical models.

Intervention research should test the effectiveness of adaptability-centered career programs compared to traditional approaches. Experimental designs could evaluate the impact of targeted adaptability training on career decision-making outcomes, providing evidence for best practices in career education.

Research should also explore the role of family influences, technological factors, and rapidly changing economic conditions in shaping career adaptability and decision-making processes. Such investigations would contribute to more comprehensive theoretical models that account for the complex interplay of individual, cultural, and environmental factors in career development.

Finally, researchers should develop and validate culturally-adapted measurement instruments for assessing career adaptability across different cultural contexts. This would facilitate more accurate cross-cultural research and enable the development of culturally sensitive career interventions.

References

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Betz, N. E. (2004). Contributions of self-efficacy theory to career counseling: A personal perspective. *The Career Development Quarterly*, 52(4), 340–353. <https://doi.org/10.1002/j.2161-0045.2004.tb00950.x>
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>





- Chen, H., Pang, L., Liu, F., Fang, T., & Wen, Y. (2023). The longitudinal relationship between perceived social support, career decision-making self-efficacy, and career adaptability among Chinese college students. *BMC Psychology*, 11, Article 145. <https://doi.org/10.1186/s40359-023-01093-x>
- Ginevra, M. C., Pallini, S., Vecchio, G. M., Nota, L., & Soresi, S. (2016). Future orientation and attitudes mediate the relationship between career adaptability and academic achievement. *Journal of Vocational Behavior*, 95–96, 102–110. <https://doi.org/10.1016/j.jvb.2016.08.004>
- Hamzah, S. R., Khoo, K. L., & Musa, S. N. S. (2021). The mediating role of career decision self-efficacy on the relationship between career emotional intelligence and self-esteem with career adaptability among university students. *International Journal of Adolescence and Youth*, 26(1), 83–93. <https://doi.org/10.1080/02673843.2021.1886956>
- Hu, Q. L. (2011). *Research on the career decision-making of college students* [Doctoral dissertation, Southwest University]. China National Knowledge Infrastructure.
- Jia, Y., Hou, Z. J., & Zhang, H. (2020). Career adaptability and career commitment in Chinese college students: The role of future work self and career decision-making difficulties. *Journal of Career Development*, 47(4), 402–416. <https://doi.org/10.1177/0894845318803319>
- Lent, R. W., & Brown, S. D. (2019). Social cognitive career theory at 25: Progress in studying the domain satisfaction and career self-management models. *Journal of Career Assessment*, 27(4), 563–578. <https://doi.org/10.1177/1069072719852736>
- Levin, N., & Lipshits-Braziler, Y. (2021). Facets of adaptability in career decision-making: A meta-analytical view. *International Journal for Educational and Vocational Guidance*, 21(1), 5–32. <https://doi.org/10.1007/s10775-020-09429-2>
- Organisation for Economic Co-operation and Development. (2023). *OECD digital education outlook 2023: Towards an effective digital education ecosystem*. OECD Publishing. <https://doi.org/10.1787/c74f03de-en>
- Salim, R. M. A., Istiasih, M. R., Rumlatur, N. A., & Situmorang, D. D. B. (2023). The role of career decision self-efficacy as a mediator of peer support on students' career adaptability. *Heliyon*, 9(3), Article e14911. <https://doi.org/10.1016/j.heliyon.2023.e14911>
- Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 147–183). John Wiley & Sons.
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Allyn & Bacon.
- Tolentino, L. R., Sedoglavich, V., Lu, V. N., Garcia, P. R. J. M., & Restubog, S. L. D. (2014). The role of career adaptability in predicting entrepreneurial intentions: A moderated mediation model. *Journal of Vocational Behavior*, 85(3), 403–412. <https://doi.org/10.1016/j.jvb.2014.09.002>
- Wang, D., Hou, Z. J., Ni, J., Tian, L., Zhang, X., Chi, H. Y., & Zhao, A. (2020). Understanding the career development of university students: The role of perfectionism and career adaptability. *Journal of Career Development*, 47(4), 469–483. <https://doi.org/10.1177/0894845318781055>
- Wu, S.-W. (2008). *The revision and application of the Career Adaptability Scale for Taiwanese college students* [Master's thesis, National Taiwan Normal University]. National Digital Library of Theses and Dissertations in Taiwan. <https://ndltd.ncl.edu.tw/>
- Zhang, X., Yu, L., Chen, Y., Wang, L., & Liu, M. (2024). Career adaptability and career coping styles among Chinese medicine specialty students during the COVID-19: The mediating role of career decision-making self-efficacy. *Heliyon*, 10(13), Article e34578. <https://doi.org/10.1016/j.heliyon.2024.e34578>