



Research Article

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The Influence of Career Construction Theory on College Students' Career Decision-Making Difficulties and Gender Differences

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Abstract

This study investigates the causal relationship between proactive personality, career flexibility, career exploration, and challenges in professional decision-making while considering the contextual factor of gender within the framework of Career Construction Theory. A survey was conducted using a questionnaire administered to a total of 726 students from three institutions in Jiangxi Province, China. Structural equation modeling analysis yielded the following results: 1. Proactive personality negatively affects difficulties in career decision-making. 2. Proactive personality impacts career decision-making challenges through its influence on career adaptability. 3. A proactive personality affects career decision-making difficulties by shaping career exploration. 4. Proactive personality influences career decision-making challenges through the sequential mediation of career adaptability and career exploration. 5. Gender differences are evident within the career construction model, resulting in variations in its constituent elements. These findings contribute to the advancement of Career Construction Theory in higher education and guide college students in their career-planning endeavors.

Keywords: Career Adaptability, Career Construction Theory, Career Decision-making Difficulties, Career Exploration, Gender

1. Introduction

The Career Construction Theory (CCT) developed by Savickas (2002) is implemented in this study to examine the current status of career decision-making difficulties among Chinese college students. This research investigates the impact of proactive personality, career adaptability, and career exploration on career decision-making difficulties, with a focus on gender differences. The complexity of making sound career decisions has intensified due to the myriad of employment opportunities, the non-linear nature of career paths, and the economic volatility faced by

contemporary college students (Gati and Levin, 2015; Lipshits-Brazilier et al., 2017). A substantial number of individuals encounter challenges in making career decisions (Lent and Brown, 2013). These difficulties in career decision-making are a widespread occupational concern, and if not addressed, they can impede effective decision-making or lead to suboptimal career choices. Therefore, identifying the factors that may influence these professional decision-making challenges is essential for guiding college students.

Challenges in career decision-making often impede individuals' capacity to independently shape their career trajectories (Tian et al., 2021). According to Savickas (2002), encountering such challenges can destabilize individuals' career-related cognitive structures due to conflicts and contradictions among various career options (Kulcsár et al., 2020). The fragile nature of these cognitive structures further exacerbates the emergence of these challenges (Storme et al., 2019). Furthermore, Savickas and Porfeli (2012) posits that in career construction theory (Savickas, 2005), achieving stable adaptation across different career stages necessitates a consideration of adaptive readiness, adaptability resources, adapting responses, and adaptation results, all of which are influenced by situational factors. Consequently, this study employs Career Construction Theory (CCT) to investigate the diverse factors influencing career decision-making challenges.

According to the career construction theory (Savickas, 2005), objective personality traits is a significant adaptive readiness factor that promotes individual career construction. adaptive readiness form the foundational elements within this theoretical framework (Savickas and Porfeli, 2012). Adaptive readiness includes various aspects such as personality traits, values, and other individual characteristics. A proactive personality, a key component of adaptive motivation, signifies an individual's intrinsic drive that remains unaffected by external pressures. It represents the internal impetus to actively seek breakthroughs (Cai et al., 2015; Jiang, 2017). Numerous studies have consistently shown that individuals with proactive personality traits are more deeply involved in the career construction process. They are more likely to explore career options and exhibit greater resilience when facing challenges and uncertainties in career decision-making (Ma et al., 2021).

In addition to adaptive readiness, As adaptability resources, career adaptability is another key step in career construction theory (Savickas, 2005). Effectively harnessing career adaptability allows individuals to navigate and mitigate difficulties encountered in career decision-making (Karacould-Ozdemir, 2019; Levin et al., 2020). Career adaptability often serves as a critical link between proactive personality and career decision-making, acting as a mediating factor in addressing these challenges (Ma et al., 2023; Ling et al., 2022; Soares & Taveira, 2024). Moreover, career adaptability lays the foundation for career exploration, enabling individuals to actively engage in exploring various career paths (Li et al., 2015; Ma et al., 2023).

Career exploration, considered an adapting responses within the career construction process (Savickas, 2005), plays a crucial role in shaping career decisions, especially among college students (Kleine et al., 2021). Moreover, adult career development also benefits from career exploration, with behaviors varying based on individual motivational factors (Lee et al., 2016). Through this process, individuals evaluate suitable career trajectories according to their interests and abilities, thereby enhancing self-awareness. Simultaneously, by collecting relevant employment-related information, individuals gain valuable insights into potential career paths. Balancing self-assessment with the information gathered through exploration equips individuals to better address challenges encountered in career decision-making (Savickas, 2013).

According to CCT, career decision-making difficulties are considered adaptive results arising from the career construction process (Savickas, 2005). These challenges stem from a combination of personality traits, values, abilities, and behaviors, which are all essential components to the career construction process (Savickas and Profeli, 2012). To understand career decision-making difficulties within the CCT framework, it is necessary to explore the interactions among proactive personality, career adaptability, and career exploration. In this context, a proactive personality influence career decision-making through career adaptability and career exploration, ultimately impacting the adaptive outcome of career decision-making difficulties.

Research by Adamuti-Trache (2004) highlights the significant influence of gender on professional choices. Additionally, Saifuddin et al. (2013) emphasize gender as a social construct that shapes individual career preferences. The importance of gender in career development is further highlighted within the framework of CCT (Savickas, 2021). Levin et al. (2020) suggest that individuals' career construction processes are influenced differently by gender, possibly due to inherent physiological differences. For instance, males may exhibit higher levels of activity, while females might be more inclined towards caution. These gender disparities have implications for career decision-making and persist despite the challenges encountered in the process (Monteiro, 2015). Therefore, this study incorporates gender considerations into the exploration of CCT.

In summary, this study builds upon the career construction theory model by incorporating proactive personality, career adaptability, and career exploration as key influencers of career decision-making difficulties. Furthermore, it acknowledges the varying impact of gender on these processes, highlighting the need for a thorough understanding. By proposing a model that positions career adaptability and exploration as mediators within different gender contexts, this study aims to address three main research objectives:

- A. Analyze the influence of proactive personality on career decision-making difficulties among college students.
- B. Explore the indirect effects of a proactive personality on career decision-making difficulties among college students through career adaptability and exploration.
- C. Investigate gender-based differences in the influences of various elements within CCT.

2. Literature Review

A proactive is acknowledged as an essential catalyst for individual career development (Randolph and Dahling, 2013). Among college students, those who exhibit proactive characteristics are more inclined to define clear career paths, actively seek relevant opportunities, anticipate potential challenges, and implement preventive strategies, thus minimizing their perceived obstacles in career decision-making (He et al., 2021). When confronted with career decision-making dilemmas, individuals with proactive tendencies typically engage in proactive behaviors, such as directly addressing challenges, exploring new opportunities, and displaying confidence in their decision-making capabilities. These attributes mitigate the anxiety and uncertainty often associated with the career decision-making process (Li et al., 2015). Consequently, individuals with proactive are more likely to navigate career choices with increased confidence, thereby avoiding the pitfalls of indecision. Specifically, among college students, possessing a proactive personality correlates with a reduced probability of encountering difficulties in making career decisions. This observation leads to the formulation of the subsequent research hypothesis:

H₁: The proactive personality of college students has a negative influence on career decision-making difficulties.

Previous research has indicated that a proactive personality significantly influences career decisions through the mechanism of career adaptability (Ma et al., 2023). Career Construction Theory (Savickas, 2013) posits that individuals frequently encounter challenges and uncertainties during the career decision-making process, which require a high degree of adaptability. Individuals with elevated levels of adaptability can flexibly modify their goals and strategies, actively managing the ambiguities and risks associated with making career decisions.

Moreover, career adaptability, considered a fundamental resource in the career construction model, is influenced by individual personality traits, such as proactive personality (Jiang, 2017). Proactive personality reflects an intrinsic drive and behavioral inclination to seek breakthroughs regardless of circumstances, making it a significant predictor of high career adaptability (Cai et al., 2015; Jiang, 2017). Individuals with proactive personalities typically demonstrate proactive attitudes and are more skilled at actively adapting to and overcoming workplace challenges. The career adaptability they cultivate enables them to effectively navigate and mitigate difficulties in the career

decision-making process (Tolentino et al., 2014). Based on the literature, a proactive personality indirectly impacts career decision-making difficulties by influencing individuals' career adaptability. Specifically, individuals with higher levels of proactive personality tend to exhibit stronger career adaptability, leading to reduced difficulties in career decision-making. Thus, the following research hypothesis is proposed:

H2: The proactive personality of college students indirectly influences career decision-making difficulties through its impact on career adaptability.

In the career exploration process, individuals set career identity goals to drive their career development, as emphasized by Savickas and Porfeli (2012). Proactive personality traits function as catalysts, stimulating individuals to engage more vigorously in career exploration endeavors, thereby attaining deeper insights into their career interests and proficiencies. Consequently, they form clearer career paths and gain increased confidence when considering various career options, thereby mitigating hesitation and uncertainty and ultimately diminishing career decision-making difficulties (Fang et al., 2017).

Career exploration, characterized as proactive career behavior, entails decision-making through careful evaluation of career options, seeking guidance, and referencing strategic plans (Jiang et al., 2019). Consequently proactive personality indirectly impacts career decision-making difficulties by influencing individual career exploration. Specifically, individuals exhibiting higher levels of proactive personality tend to manifest heightened levels of career exploration, consequently leading to a reduction in challenges encountered in making career decisions. Thus, the following research hypothesis is proposed:

H3: The proactive personality of college students in Jiangxi Province, China, indirectly influences career decision-making difficulties through its impact on career exploration.

The process of individual career reconstruction, as described by Savickas and Porfeli (2012), is closely linked to career adaptability and career behaviors, notably career exploration. Within the realm of career adaptability, two key factors—curiosity and attention—emerge as significant predictors of career exploration. Attention aids individuals in priming themselves for forthcoming career prospects. In contrast, curiosity drives the exploration of personal attributes and professional opportunities (Li et al., 2015). Consequently, career adaptability serves as a cornerstone for individuals embarking on their career exploration journeys (Guan et al., 2015).

Individuals with high levels of career adaptability exhibit improved abilities to navigate workplace challenges and understand varied career paths, leading to proactive engagement in career exploration. Conversely, those needing more career adaptability may need help in actively participating in career exploration initiatives (Li et al., 2015; Ma et al., 2023). Strong career adaptability empowers individuals to explore diverse career pathways, confront novel career challenges, and consequently experience reduced uncertainty in career decision-making processes (Ma et al., 2023).

Aligned with CCT advanced by Savickas (2013), a proactive personality in career development equips individuals to navigate future career decisions by actively adapting to and accruing information and experiential insights through career exploration. CCT posits that individuals engage in specific developmental tasks and adopt coping strategies at various stages of their career paths; career development is thus a dynamic process driven by internal motivations. Attaining stable adaptation at each stage necessitates fulfilling prerequisites for adaptive motivation, career adaptability, adaptive behavior, and adaptive outcomes.

Proactive personality, as a motivational factor, exerts influence on career adaptability, thereby impacting career exploration and ultimately contributing to career decision-making difficulties. This study integrates these interconnected relationships into the CCT model to explore how proactive personality influences career decision-making difficulties through career adaptability and career exploration. Based on the literature review above, the following research hypothesis is proposed:

H4: College students' proactive personalities indirectly influence career decision-making difficulties through their impact on career adaptability and career exploration.

Gender has consistently been an important research area in the CCT model (Jung and Takeuchi, 2016). The CCT underscores the multifaceted nature of career determinants, encompassing individual traits, social contexts, and situational dynamics. Among these influences, gender significantly shapes career development processes (Savickas, 2021). Social role theory posits that gendered role perceptions and societal norms exert significant influence over career trajectories. Men often gravitate towards competitive, leadership-oriented roles, while women tend to navigate careers emphasizing interpersonal dynamics, caregiving, and service (Eagly and Wood, 2012; Savickas, 2013). These inclinations are further accentuated by inherent biological predispositions, with the male predisposed to risk-taking and assertiveness, and females exhibiting a tendency towards caution and prudence. Such gendered patterns intricately influence career pathways, contributing to disparities in negotiating the complexities of career decision-making (Monteiro, 2015; Levin et al., 2020; Bacouldli, 2016).

Furthermore, gender disparities extend to proactive personality traits (Dos Santos, 2022), wherein men often exhibit proactive and self-assured career behaviors, contrasting with the more tentative and introspective tendencies observed in women. These gendered variations in proactive personality also impact career adaptability (Safavi and Bouzari, 2019). Moreover, driven by entrenched gender roles, men tend to pursue high-stakes career endeavors and leadership positions zealously, while women may prioritize considerations related to individual career progression and work-life balance, yielding diverse approaches to career exploration (Lim and Lee, 2021; Nagib and Wilton, 2020).

In summary, the differential impacts of gender within the CCT model involve multiple dimensions, such as an individual's proactive personality, career adaptability, career exploration, and career decision-making difficulties. Synthesizing the literature on the impacts of gender on CCT, the gender influences the relationships between various stages of the CCT model. Thus, the following research hypothesis is proposed:

H5: College students will exhibit differences in various elements (proactive personality, career adaptability, career exploration, and career decision-making difficulties) in the CCT model due to different genders.

3. Materials and Methods

3.1 Research hypotheses and the theoretical model

This study has proposed the theoretical model based on the above hypotheses, as shown in Figure 1.

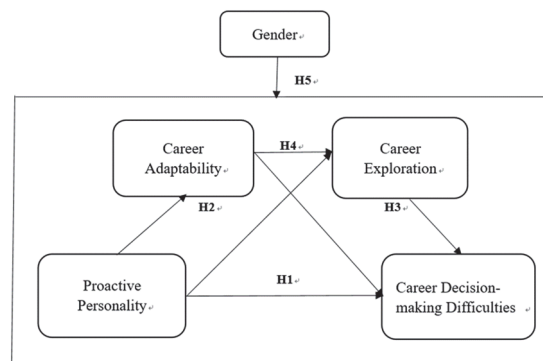


Figure 1. The theoretical model for correlation among proactive personality, career adaptability, career exploration and career decision-making difficulties

3.2 Research Participants

This study utilizes a comprehensive investigation approach to examine the students from higher education institutions from three different areas in Jiangxi. The selected institutions for the study include N institution, J institution, and X institution. These institutions vary significantly in terms of student cultivation, Institution A is a national pilot vocational college for training skilled talents in short supply, Institution B is the first ordinary higher vocational and technical college in China to cultivate talents in new energy applications, Institution C has obtained the key project of Jiangxi higher education graduates' employment innovation base (career development education) and has also been recognized as a national advanced unit in vocational education. Since freshmen, as newly enrolled students, have relatively shallow awareness regarding career employment, this study focuses on second and third-year students to obtain more accurate information. Five classes from each grade were randomly selected from institutions N, J, and X. A total of 790 questionnaires were distributed. 726 questionnaires that passed screening were gathered in total, resulting in a 93.16% response rate. The participants were aged 18 to 20 (Mage = 18.52 SD = .649), with 172 (23.7%) females and 554 (76.3%) males.

3.3 Research Instruments

This study employed several well-established scales to measure key constructs: the Proactive Personality Scale by Shang and Gan (2009), the Career Adaptability Scale by Savickas and Porfeli (2012), the Career Exploration Scale by Kracke (1997), and the Career Decision-Making Difficulties Scale by Gati and Saka (2001). These instruments underwent confirmatory factor analysis (CFA), with all fit indices indicating satisfactory results, as detailed in Table 1.

Shang and Gan (2009) adapted the Proactive Personality Scale (PPS) to be more suitable for students from Eastern cultures. This unidimensional scale includes 11 items and uses a 7-point Likert scale, where 1 signifies "strongly disagree" and 7 signifies "strongly agree." The survey emphasized students' perspectives on career development, with the scale providing the prompt: "People with proactive personalities are relatively uninhibited by situational forces and can influence environmental change in future career development paths." An example item is, "I am good at turning problems into opportunities." In the present study, the Cronbach's α of the scale was .935, indicating high internal consistency.

The Career Adapt-Abilities Scale (CAAS) developed by Savickas and Porfeli (2012) assesses career adaptability. The survey prioritized students' perspectives on career development, with the scale providing the prompt "Career adaptability is manifested in exploring available opportunities (exploration), envisioning future career paths (planning), making appropriate and valuable career decisions (decision-making)." The scale consists of 24 items across four dimensions: concern, control, curiosity, and confidence, with each dimension containing six items, scored on a five-point Likert scale. In the present study.

Kracke's (1997) Career Exploration Scale (CES) measures career exploration through a six-item scale, involving self and environmental exploration and the breadth of exploration. This unidimensional scale uses a 5-point Likert format. In the present study, the Cronbach's α of the scale was 0.807, indicating acceptable internal consistency.

The Career Decision-making Difficulties Questionnaire (CDDQ), developed by Gati and Saka (2001), is a 32-item measure designed to assess difficulties in career decision-making. Utilizing a 9-point Likert scale, higher scores on this instrument denote greater levels of career decision-making difficulties. The CDDQ encompasses three distinct dimensions: lack of readiness, lack of information, and inconsistent information.

Table 1. Reliability and Validity of the Scales

	Standards	PPS	CAAS	CES	CDDQ
χ^2/df	<.000	2.731	2.393	2.001	2.521
GFI	>.800	.910	.801	.970	.810
SRMR	<.080	.041	.030	.061	.031
RMSEA	<.100	.092	.091	.072	.092
NFI	>.800	.931	.881	.981	.882
CFI	>.800	.956	.932	.990	.901
RFI	>.800	.900	.861	.973	.815
IFI	>.800	.956	.932	.990	.901
PNFI	>.500	.651	.741	.502	.721
PCFI	>.500	.662	.782	.503	.775
Construct Reliability	>.600	.901	.912, .933, .952, .954	.941	.943, .960, .963
Average Variance Extracted	>.500	.524	.642, .691, .742, .772	.732	.512, .701, .763
Cronbach's α	>.800	0.935	0.923	0.807	0.945

Notes: PP= Proactive Personality Scale, CAAS= The Career Adapt-abilities Scale, CES= Career Exploration Scale, CDDQ =The Career Decision-making Difficulties Questionnaire

3.4 Data Analysis

Given the differing scoring systems of the four scales utilized in this study - the proactive personality scale (7-point Likert scale), the career adapt-abilities scale (5-point Likert scale), the career exploration scale (5-point Likert scale), and the career decision-making difficulties questionnaire (9-point Likert scale) - it was necessary to standardize the scoring methods of the career adapt-abilities, career exploration, and career decision-making difficulties scales to a 7-point scale. This was achieved using the formula $Y = (B-A)(x-a) / (b-a) + A$ (IBM, 2020), facilitating a consistent analysis of the relationships among the variables. Data analysis and hypothesis testing were performed, which included examining common method bias and conducting correlation analyses among the variables. Structural Equation Modeling (SEM) was employed to investigate the paths of the variables and the overall research model.

4. Results

4.1 Common Method Variance

Data for this study were collected using self-report methods, which have the potential to introduce common method bias. To mitigate this issue, the study adopted both procedural and post-hoc statistical measures in line with previous research practices. Specifically, Harman's single-factor test was employed for the post-hoc statistical analysis. This test involved the collective analysis of all measurement items of the variables within a single exploratory factor. The analysis revealed 36 principal components extracted before factor rotation, with the first factor explaining 44.83% of the variance. This value is below the critical threshold of 50% (Podsakoff et al., 2003), indicating that no significant common method bias was present.

4.2 Correlation Analyses among Variables

Correlation analysis (Table 2) revealed that career decision-making difficulties had significant negative correlations with proactive personality ($r = -.380$), career adaptability ($r = -.377$), and career exploration ($r = -.393$). Proactive personality was found to have significant positive correlations with

career adaptability ($r = .558$) and career exploration ($r = .437$). Additionally, there was a significant positive correlation between career adaptability and career exploration ($r = .465$). These findings indicate moderate correlations among the variables. However, it is important to note that these results only reflect relationships and do not imply causation. Consequently, the next phase of this research will employ Structural Equation Modeling (SEM) to investigate the causal relationships among the variables.

Table 2: Descriptive Statistics and Correlations among Variables

Variables	Mean	SD	1	2	3	4
1. Proactive Personality	3.492	1.041	1			
2. Career Adaptability	3.468	0.817	.558***	1		
3. Career Exploration	3.503	0.934	.437***	.465***	1	
4. Career Decision-Making Difficulties	4.177	0.967	-.380***	-.377***	-.393***	1

Note : * $p < .05$ ** $p < .01$ *** $p < .001$.

4.3 Structural Equation Model Path Analysis

Structural Equation Modeling (SEM) in AMOS was implemented to maximum likelihood estimation, validate the causal relationships among variables, and test the primary hypotheses concerning the mediating effects of career exploration and career adaptability. As illustrated in Figure 2, the structural path model diagram was set up. Maximum likelihood estimation was applied to estimate the model's fit indices. $\chi^2/df=2.829$, $TLI=.978$, $AGFI=.961$, $CFI=.986$, $IFI=.986$, $SRMR=.027$, $RMSEA=.050$ were the fit indices for the model utilized in this investigation. (Lomax and Schumacker, 2004) These fit indices denote a satisfactory level of model fit, meeting the requirements for an outstanding fit.

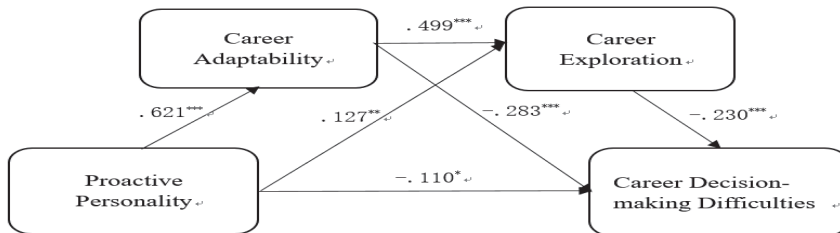


Figure 2. Path of the Mediation Model

Note : * $p < .05$ ** $p < .01$ *** $p < .001$.

After conducting the common method bias test across all items, this study used SEM to examine the influence relationships among paths (as shown in Figure 2). Following the CFA of the model, the direct path coefficient of proactive personality on career decision-making difficulties was found to be ($\beta = -.069$, $p < .050$), thereby supporting hypothesis H1. Subsequently, this study utilized the non-parametric percentile Bootstrap method to calculate the indirect effects between variables (as shown in Table 3). The results indicated that there was a significant indirect relationship between proactive personality and career decision-making difficulties through career adaptability ($\beta = -.176$, $[-.160, -.065]$), with the mediation effect accounting for 72.727% of the total effect. The result suggests that the proactive personality of college students indirectly influences career decision-making difficulties through career adaptability, thus supporting hypothesis H2.

Similarly, there was a significant indirect relationship between proactive personality and career

decision-making difficulties through career exploration ($\beta=-.029$, $[-.036, -.006]$), with the mediation effect accounting for 11.983% of the total effect. The result indicates that the proactive personality of college students indirectly affects career decision-making difficulties through career exploration, thus supporting hypothesis H3. Additionally, career adaptability and career exploration exhibited multiple indirect effects on the relationship between proactive personality and career decision-making difficulties ($\beta=-.071$, $[-.065, -.028]$), with multiple mediation effects accounting for 29.339% of the total effect. The result suggests that the proactive personality of college students influences career decision-making difficulties through career adaptability, which in turn affects career exploration, thus supporting hypothesis H4.

Table 3. Bootstrap SEM Analysis of Total, Direct, and Indirect Effects

Standardized Direct Effects	β	Standard Error	95% Confidence Interval	
			Boot LLCI	Boot ULCI
PP → CDD	-.110*	.031	-.008	-.131
PP → CA	.621**	.024	.403	.305
CA → CDD	-.283**	.077	-.177	-.443
PP → CE	.127**	.040	.193	.038
CE → CDD	-.230**	.030	-.098	-.218
CA → CE	.499**	.077	.940	.630
Standardized Indirect Effects				
PP → CA → CDD	-.176**	.024	-.160	-.065
PP → CE → CDD	-.029**	.007	-.036	-.006
PP → CA → CE → CDD	-.071**	.009	-.065	-.028
Total effect	-.242**	.026	-.295	-.194

Note : * $p < .05$ ** $p < .01$ *** $p < .001$

This study conducted a multi-group analysis on the influence of proactive personality, career adaptability, and career exploration on career decision-making difficulties among gender groups. After incorporating the gender group, the model fit indices were as follows: $\chi^2/df = 1.966$, $TLI = .975$, $AGFI = .947$, $CFI = .984$, $IFI = .984$, $SRMR = .052$, $RMSEA = .037$, all indicating excellent fit (Lomax and Schumacker, 2004). Table 4 results showed that regardless of gender, proactive personality significantly influences career adaptability, but the impact is significantly higher in males than females ($Z = -3.006$). The direct effects of career adaptability on career decision-making difficulties were significant only for males. In contrast, the direct effect of proactive personality on career exploration was significant only for males. Regarding indirect effects, there were indirect effects of career adaptability and career exploration in the male group, but not in the female group. However, regardless of gender, a proactive personality influences career decision-making difficulties through career adaptability and career exploration, indicating a multiple mediation effect in both gender groups. In summary, there are differences in the factors of CCT among different gender contexts, supporting hypothesis H5.

Table 4. Multi-group Analysis of Total, Direct, and Indirect Effects

Standardized Direct Effects	Female			Male		
	β	LLCI	ULCI	β	LLCI	ULCI
PP → CDD	-.139	-.306	.407	-.002*	-.221	-.002
PP → CA	.375***	.190	.539	.665***	.550	.665
CA → CDD	.057	-.170	.294	-.222***	-.459	-.222
PP → CE	.044	-.235	.118	.279***	.082	.279
CE → CDD	-.338***	-.517	-.159	-.099***	-.291	-.099
CA → CE	.405***	.187	.596	.579***	.385	.579

Standardized Direct Effects					Female			Male				
					β	LLCI	ULCI	β	LLCI	ULCI		
Standardized Indirect Effects												
PP	->	CA	->	CDD	.014	-.043	.081	-.141**	-.193	-.088		
PP	->	CE	->	CDD	.010	-.026	.062	-.023**	-.044	-.008		
PP	->	CA	->	CE	->	CDD	-.033**	-.085	-.009	-.039**	-.061	-.020

Note : * $p < .05$ ** $p < .01$ *** $p < .001$

5. Discussion

5.1 Proactive personality has a negative effect on career decision-making difficulties

The findings of this investigation corroborate previous scholarly inquiries, revealing a significant inverse relationship between college students' proactive personality and the challenges they encounter in making career decisions (He et al., 2021; Shen and Gu, 2018). Individuals characterized by pronounced proactive tendencies tend to articulate well-defined vocational objectives and exhibit unwavering confidence in their ability to confront forthcoming adversities. Such assertive self-assurance facilitates a reduction in the apprehension and perplexity typically associated with the career decision-making process (Li et al., 2013). Conversely, individuals demonstrating lower levels of proactive disposition may find themselves lacking in decisive impetus and self-assurance, consequently experiencing states of ambiguity and hesitancy during career selection, ultimately culminating in vocational impasses.

5.2 Career adaptability mediated relationship between proactive personality and career decision-making difficulties

Consistent with previous academic investigations, this study identifies a noteworthy negative correlation between the level of proactive personality exhibited by college students and the severity of career decision-making difficulties they face (He et al., 2021; Shen and Gu, 2018). Significantly, individuals with marked proactive tendencies are more likely to express precisely defined professional goals and demonstrate unwavering confidence in their ability to overcome impending challenges. Such confident self-assurance reduces the anxiety and confusion typically linked to the process of making career decisions (Li et al., 2013). Conversely, those with diminished levels of proactive disposition might need more confidence in their abilities to make sudden decisions. Consequently, they may need more certainty when making career decisions, potentially leading to stagnation in their professional pursuits.

5.3 Career exploration mediated relationship between proactive personality and career decision-making difficulties

This study examines how career exploration acts as a mediator between proactive personality traits and career decision-making difficulties among college students, consistent with findings reported by Park (2017). Savickas (2013) suggests that individuals with intrinsically motivated proactive personality traits actively and willingly explore various career paths. By engaging in proactive exploration, individuals actively search for and absorb relevant information to determine their career interests, values, and skills. This proactive engagement allows individuals to effectively prepare themselves for future career decisions and mitigate challenges related to making career choices.

5.4 *Career adaptability and career exploration chain mediated relationship between proactive personality and career decision-making difficulties.*

The current study unveils a sequential mediation process involving career adaptability and career exploration in the relationship between proactive personality traits and career decision-making difficulties among college students. Based on Savickas's (2002) CCT, individuals progress through stages of adaptive motivation, adaptability, and adaptive behaviors, ultimately leading to positive outcomes in their career development journey. Proactive individuals, by their nature, actively engage with challenges and changes, thereby enhancing their capacity for career adaptability. Subsequently, heightened adaptability propels individuals towards proactive career exploration, fostering an inclination to seek out career information and experiences. Through proactive engagement in career exploration, individuals gain deeper insights into their career interests and aspirations, thus mitigating challenges encountered during career decision-making processes. Hence, proactive personality traits facilitate a coherent, sequential mediation process by influencing adaptability and exploration behaviors, thereby aiding in the navigation of career decisions.

5.5 *Gender differences contribute to the impact of factors within the career construct theory.*

This study identified gender-based disparities in the impact of proactive personality on career adaptability, the correlation between career adaptability and career decision-making challenges, and the effect of proactive personality on career exploration, with males exerting significantly greater influence than females in all these relationships. These variations can be ascribed to conventional gender role perceptions and societal expectations (Eagly and Wood, 2012). Men are frequently encouraged to exhibit daring and proactive behaviors, enabling them to adjust to more active changes in the workplace. Conversely, women might encounter conventional expectations that limit their proactive engagement in career-related pursuits. Cultural influences may also lead to males exhibiting higher levels of proactivity in terms of career adaptability and exploration. Moreover, societal demands placed on males may foster greater flexibility, as they may be more inclined to embrace novel career opportunities, develop defined career objectives, and navigate career choices with greater confidence, thereby reducing decision-making challenges.

6. Conclusion

This study, using Career Construction Theory, explores the intricate relationships between proactive personality, career adaptability, career exploration, and career decision-making difficulties, particularly focusing on gender dynamics. The results of this study indicate that in the process of career decision among college students, it is essential that the cultivation of proactive personality, besides of the enhancement of career exploration and adaptability considering individual differences. When providing career decision-making guidance, individuals should select their careers based on their own abilities and interests, rather than being constrained by gender stereotypes. Additionally, differentiated guidance should be given for males and females. (Priyashantha et al., 2023). For example, male can primarily be achieved through the cultivation of an proactive personality. Firstly, students should be encouraged to set personal career goals and develop specific plans to achieve these goals. Secondly, educators should guide students to actively explore career information, including industry trends, career requirements, and development prospects, to enhance their career awareness. Furthermore, by participating in internships, volunteer services, and extracurricular activities, students can apply theoretical knowledge in practical situations, thereby improving their problem-solving skills. By implementing these strategies, we can effectively promote the development of an proactive personality in college students, laying a solid foundation for their future careers.

At the same time, both male and female can reduce the career decision-making difficulties

through the cultivation of career adaptability and career exploration. Therefore, given the important role of career adaptability and exploration, higher education institutions can utilize relevant career planning courses. Through career counseling or by establishing career consultation channels, career planning instructors or counselors should help college students enhance their career awareness, foster positive, proactive, and optimistic attitudes, and promote future career planning orientations and behaviors. Additionally, they should cultivate a sense of control and responsibility in adolescents and young adults when making choices to strengthen their career control. It is also important to demonstrate how to explore oneself and the environment to obtain useful information for career choices, thereby increasing career curiosity. Furthermore, enhancing college students' perception of their ability to cope with challenges and solve problems will boost their career confidence (Hartung & Cadaret, 2017). Simultaneously, career planning instructors or counselors should work together to develop personalized strategies tailored to the needs of individuals based on different situations and genders. They should enhance students' self-awareness of their weaknesses and improve their career development and adaptability (Niu et al., 2019), ultimately contributing to the goal of reducing the difficulties college students face in career decision-making.

7. Recommendations

The objective of this research is to explore the impact of Career Construction Theory on gender-specific barriers in career decision-making. Based on the findings, several recommendations are provided for researchers. The study highlights that gender differences exist in terms of adaptability and the difficulties associated with career choices. Additionally, social roles and individual differences in career perception may also play a significant role in these outcomes (Eagly and Wood, 2012). Potential factors influencing the challenges encountered in career decision-making, such as occupational identity and gender roles, warrant further exploration in future research. Through students' retrospective feedback, this study reveals a preference for verbal expression of thoughts and concerns, particularly in relation to the complexities of making career decisions. Therefore, incorporating qualitative research methods in future studies could facilitate the collection of more comprehensive data, enabling a deeper examination of the diverse challenges faced by college students when making career decisions from various educational perspectives.

8. Limitations

Despite the valuable insights this study offers, several inherent limitations must be acknowledged. Firstly, the research sample, drawn from college students at three tertiary institutions in Jiangxi Province, China, may limit the generalizability of the findings to a broader student population. Secondly, although methodological diversification was employed to mitigate them, the use of questionnaire surveys might still introduce common method biases. Additionally, due to the dynamic nature of individual development, outcomes may evolve over time, highlighting the need for longitudinal studies to capture these changes comprehensively. Finally, the hypotheses of this study were formulated within a constrained framework imposed by existing literature and space limitations, which may have overlooked subtleties in the relationships among variables. Future research should strive for a more nuanced examination of these complexities to enhance our understanding of career decision-making difficulties among college students

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