

Career Decision-Making in China: A Moderated Mediation Model of Self Efficacy, Personal Utility, and Subjective Norms

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To Cite This Article:

Kexin, B., Zainudin, Z., & Jamil, N. K. (2026). Career Decision-Making in China: A Moderated Mediation Model of Self Efficacy, Personal Utility, and Subjective Norms. *ICCCM Journal of Social Sciences and Humanities*, 5(1), 16-28. <https://doi.org/10.53797/icccmjssh.v5i1.1.2026>

Received 26 December 2025, **Revised** 29 December 2025, **Accepted** 10 January 2026, **Available online** 12 January 2026

Abstract: Career decision-making among university students is increasingly shaped by both psychological beliefs and sociocultural expectations, particularly in collectivist contexts such as China. Grounded in Social Cognitive Theory, Expectancy Value Theory, and the Theory of Planned Behavior, this study proposes and tests a moderated mediation model explaining how self-efficacy and personal utility influence career choice decisions through support-seeking behavior, with subjective norms acting as a moderator. A cross-sectional survey was conducted among 368 undergraduates from public universities in Liaoning Province, China. Data were analyzed using Structural Equation Modeling (SEM). The results indicate that self-efficacy and personal utility significantly predict support-seeking behavior, which in turn has a strong positive effect on career choice decisions. Support seeking also partially mediates the relationships between the psychological predictors and career outcomes. Furthermore, subjective norms significantly moderate the relationship between support seeking and career choice, strengthening this link under higher perceived social expectations. These findings highlight the integrated influence of personal agency and social context in shaping students' career decisions in collectivist societies. The study contributes to career development literature by validating a culturally responsive moderated mediation model and offers practical implications for career counseling, family engagement, and policy design in higher education.

Keywords: Career decision-making, self-efficacy, personal utility, subjective norms, support seeking, moderated mediation, chinese undergraduates

1. Introduction

Career choice is a pivotal life decision that profoundly shapes an individual's future trajectory, economic independence, and psychological well-being. It influences not only personal satisfaction and occupational identity but also broader social and economic development through the alignment of human capital with labor market needs (Ballout, 2007). In the context of higher education, understanding how college students make career decisions has become increasingly urgent as they face dynamic labor markets, evolving industrial structures, and intensified competition for professional opportunities. In China, these challenges are particularly pronounced due to rapid economic transformation and a growing mismatch between educational qualifications and employment demands (Shi, 2024). Thus, examining the psychological and social factors that influence career decision-making among Chinese undergraduates provides critical insights into both individual development and national talent strategies.

Recent decades have witnessed a theoretical shift in career development research from trait factor approaches toward psychosocial and contextual perspectives. Classical models such as Holland's theory of vocational interests (Tracey and Rounds, 1993) and Super's life-span theory (Hartung, 2013). These perspectives underscore that career decisions emerge from an interplay between self-belief (self-efficacy), cognitive appraisals (perceived ability and utility), and social expectations (subjective norms). However, empirical integration of these theories remains limited, especially within collectivist cultural contexts where social norms and family expectations exert strong influence over career pathways (Sawitri et al., 2014).

Fundamentally, self-efficacy is a one's belief in the capacity to perform tasks successfully that has long been recognized as a key determinant of career choice behavior (Hackett & Betz, 1995). Students with higher self-efficacy tend to exhibit stronger persistence, confidence, and adaptability in navigating career-related challenges (Swami et al.,

2024). Perceived personal ability, while conceptually related to self-efficacy, refers more specifically to individuals' self-assessment of their skills and competencies in relation to career requirements (Huang, 2022). Empirical studies suggest that perceived ability influences both the breadth of career options considered and the willingness to seek guidance or explore alternative choices (Jackson & Wilton, 2017). Personal utility, derived from Expectancy Value Theory, pertains to the perceived value or benefit of career outcomes such as job stability, income, or personal fulfillment and functions as a motivational driver of decision-making. Collectively, these cognitive constructs are crucial in determining how students evaluate opportunities, engage in exploration, and commit to specific career paths.

Beyond individual cognition, support seeking represents an important behavioral mechanism in career decision-making. Support seeking involves actively obtaining advice, information, or emotional reassurance from others such as family, peers, teachers, and career counselors to mitigate uncertainty and enhance decision quality (Kuang & Wang, 2023). Students who engage more frequently in support seeking are often better informed, more confident, and less prone to indecision (Heinrichs et al., 2021). However, in collectivist contexts like China, the nature of support seeking is embedded within social relationships and is often regulated by subjective norms that the perceived expectations and pressures from significant others. Subjective norms influence whether individuals feel comfortable seeking guidance and whose opinions they prioritize when making career choices. This interplay between support seeking and social norms remains underexplored despite its importance in cultures where family endorsement strongly shapes vocational behavior (Hui & Lent, 2018).

In China's northeastern Liaoning Province, the issue is particularly salient due to the region's ongoing industrial transformation. Once a hub of heavy industry, Liaoning is shifting toward diversified sectors such as technology, services, and creative industries. This economic transition presents both opportunities and uncertainties for college students who must balance aspirations for modern careers with family expectations for stability. Research in economically developed regions such as Beijing and Shanghai had provided insights into career motivation (Hu et al., 2020), yet there remains a paucity of empirical work addressing underrepresented provinces undergoing structural change. Given Liaoning's distinctive socio-economic landscape and strong collectivist traditions, it offers a valuable context for examining how psychological and social determinants jointly shape students' career choice processes.

Not to mention, existing studies have typically analyzed self-efficacy, perceived ability, and personal utility as isolated predictors of career outcomes, with limited attention to the mechanisms that connect these constructs to behavioral outcomes such as support seeking and career decisions. Moreover, few models have incorporated subjective norms as a moderating factor, despite evidence that social pressures can either strengthen or weaken the influence of psychological factors on decision behavior. Thus, a comprehensive model integrating cognitive predictors, behavioral mediators, and social moderators is essential to capture the complex dynamics underlying students' career decision-making processes in collectivist educational environments.

To address these gaps, the present study proposes and empirically tests an integrated moderated model of career choice decisions among Chinese undergraduates. Specifically, it investigates: (a) the relationships between self-efficacy, perceived personal ability, and personal utility with support-seeking behavior; (b) the influence of support seeking on career choice decisions; and (c) the moderating role of subjective norms in the link between support seeking and career choice. By employing Structural Equation Modeling (SEM) on data collected from 368 students across multiple universities in Liaoning Province, the study provides empirical validation of the theoretical pathways linking psychological and social factors in career decision-making.

This study makes three key contributions. Theoretically, it extends career development frameworks by integrating cognitive, behavioral, and sociocultural dimensions into a unified model. Empirically, it contributes region-specific evidence from a transitional Chinese province, enriching the global understanding of career decision-making within collectivist contexts. Practically, the findings offer implications for educational policymakers, career counselors, and university administrators seeking to design interventions that enhance self-efficacy, promote proactive support-seeking behaviors, and align career counseling services with students' social environments. Collectively, this study advances the discourse on how psychological and social factors converge to shape adaptive career choices in the rapidly transforming educational and labor landscapes of East Asia.

2. Literature Review and Hypotheses Development

2.1 Theoretical Foundations

Career decision-making is a multifaceted process influenced by both internal psychological factors and external social environments. Three major theoretical perspectives underpin this study: Social Cognitive Theory (Bandura, 2005), Expectancy Value Theory (Wigfield, 1994), and the Theory of Planned Behavior (Ajzen, 1991). Together, these frameworks provide a robust foundation for understanding how cognitive evaluations, motivational appraisals, and social influences shape individual decision-making.

According to Social Cognitive Theory (SCT), human behavior is a product of the reciprocal interaction between personal factors, environmental conditions, and behavioral patterns (Bandura, 2005). A central construct within SCT is self-efficacy, which refers to individuals' belief in their capability to perform a given task successfully (Stajkovic & Luthans, 1998). In the career context, self-efficacy determines whether students view themselves as competent to pursue and succeed in specific occupations. Those with high self-efficacy tend to display greater initiative, perseverance, and

resilience in overcoming career-related obstacles (Sun et al., 2025). This theoretical lens supports the proposition that internal beliefs can motivate support-seeking behaviors as a proactive coping mechanism during career planning.

The Expectancy Value Theory (EVT) posits that individuals' decisions are guided by their expectations of success and the subjective value they attach to outcomes (Eccles and Wigfield, 2020). Within career development, perceived personal ability represents the expectancy component such students' perceptions of their competencies relative to career demands (Räty et al., 2018), while personal utility reflects the value component such students' perceptions of the anticipated rewards and benefits of a career path. EVT suggests that individuals are more likely to engage in behaviors that align with high perceived ability and high perceived value. Accordingly, when students perceive high personal competence and utility in their chosen careers, they are more motivated to seek informational and emotional support to actualize their goals.

The Theory of Planned Behavior (TPB) (Ajzen, 1991) extends this discussion by emphasizing the role of subjective norms as the perceived social pressures from family, peers, and society to perform or avoid specific behaviors. Within collectivist contexts such as China, subjective norms often function as powerful determinants of behavioral intention. In the career decision process, social expectations may moderate how psychological factors translate into actual behaviors such as support seeking or career decision-making (Vogel et al., 2005). Integrating TPB with SCT and EVT thus provides a comprehensive framework linking cognitive, behavioral, and sociocultural influences on career choice.

2.2 Self-Efficacy and Support Seeking

Self-efficacy has been extensively studied as a predictor of both academic and career behaviors. It influences how individuals interpret challenges, manage uncertainty, and pursue goal-directed actions (Bandura, 2005). In the career decision context, students with higher self-efficacy are more confident in exploring diverse career options and more likely to seek assistance from mentors, peers, and institutional resources (Salim et al., 2023). Empirical findings across educational settings suggest that self-efficacy positively correlates with help-seeking and career exploration behaviors.

In the Chinese context, where students often face intense academic competition and parental expectations, support seeking can act as an adaptive strategy to navigate uncertainty and align career goals with social norms. Liaoning Province, characterized by economic transition and evolving labor demands, presents an environment where students with higher self-efficacy are particularly likely to engage in resourceful support-seeking behaviors to enhance decision-making accuracy.

Hypothesis 1 (H1): Self-efficacy has a significant positive relationship with support seeking among Chinese college students.

2.3 Perceived Personal Ability and Support Seeking

Perceived personal ability refers to an individual's self-assessment of their own competencies and skills (Boekaerts, 1991). It reflects not only technical and academic proficiency but also the confidence to apply those abilities in career contexts. According to Briner & Waslhe (2014), students who evaluate their personal abilities positively are more proactive in gathering information and consulting with knowledgeable individuals to confirm and extend their perceived strengths. Existing research suggests that perceived personal ability is linked to students' willingness to seek feedback and support from peers and educators. In a collectivist setting like China, individuals who perceive themselves as capable are more likely to engage in instrumental support seeking which actively soliciting career information (Tata & Leong, 1994). Conversely, those with lower perceived abilities may avoid seeking support due to fear of judgment or loss of face.

Hypothesis 2 (H2): Perceived personal ability has a significant positive relationship with support seeking among Chinese college students.

2.4 Personal Utility and Support Seeking

Personal utility, derived from the value component of Expectancy Theory, captures individuals' perceptions of the expected benefits, rewards, and satisfaction associated with career outcomes (Eccles and Wigfield, 2020). Students who attach greater utility value to their career aspirations such as job stability, social prestige, or personal fulfillment tend to be more motivated to engage in activities that increase the likelihood of achieving those goals. Support seeking serves as one such behavior, enabling students to access information, guidance, and emotional reinforcement aligned with their valued outcomes. Prior studies in East Asian contexts have shown that perceived utility influences students' engagement in career counseling and participation in internship programs (To & Lung, 2020). In transitional economies like Liaoning's, where emerging industries compete with traditional sectors, students with a strong sense of personal utility are more inclined to seek expert advice and familial input to evaluate which paths yield optimal rewards.

Hypothesis 3 (H3): Personal utility has a significant positive relationship with support seeking among Chinese college students.

2.5 Support Seeking and Career Choice Decisions

Support seeking is a critical behavioral mechanism in the career decision process. It involves drawing on interpersonal and institutional resources to gather information, gain reassurance, and reduce decision uncertainty. According to the Social Cognitive Career Theory (Wang et al., 2022), help-seeking behaviors facilitate self-regulation and adaptive decision-making by allowing individuals to access environmental supports. Empirical studies demonstrate that students who engage in support seeking exhibit greater clarity in career goals, higher decision self-efficacy, and reduced indecision (Choi et al., 2012).

In collectivist societies, support seeking is often embedded in relational networks where advice from family, peers, and educators plays a decisive role (Chang, 2015). For Chinese students, family expectations are especially influential; hence, support seeking frequently involves balancing personal aspirations with social obligations (Fuligni et al., 2002). Within Liaoning's transforming economy, where uncertainty about future employment prospects is high, active support seeking can strengthen informed career choices and enhance adaptability.

Hypothesis 4 (H4): Support seeking has a significant positive relationship with career choice decisions among Chinese college students.

2.6 Moderating Role of Subjective Norms

Subjective norms refer to the perceived expectations of significant others such as family, peers, and society that shape an individual's behavioral intentions (Ajzen, 1991). In China's collectivist culture, family opinions and societal prestige strongly influence students' educational and career pathways. When making career decisions, students often face tension between personal interests and family expectations for social status and job security (Ostrove et al., 2011). Consequently, subjective norms possibly will moderate the impact of psychological and behavioral factors on decision outcomes.

Empirical research has shown that subjective norms can amplify the influence of support seeking on behavioral outcomes by legitimizing or reinforcing the value of external consultation. In high-norm environments, students may feel more compelled to align their support-seeking actions with familial expectations, resulting in greater responsiveness to advice and more socially congruent career decisions. Conversely, when perceived social pressure is low, the influence of support seeking on decision-making may weaken as individuals rely more on personal judgment (Janis, 1983).

In Liaoning Province, where traditional collectivist values coexist with modern economic aspirations, subjective norms are expected to exert a substantial moderating effect. Students embedded in strong normative networks are likely to translate their support-seeking behaviors into concrete career choices that meet social approval while still addressing personal utility goals.

Hypothesis 5 (H5): Subjective norms moderate the relationship between support seeking and career choice decisions such that the relationship is stronger under higher levels of perceived social expectations.

2.7 Conceptual Framework

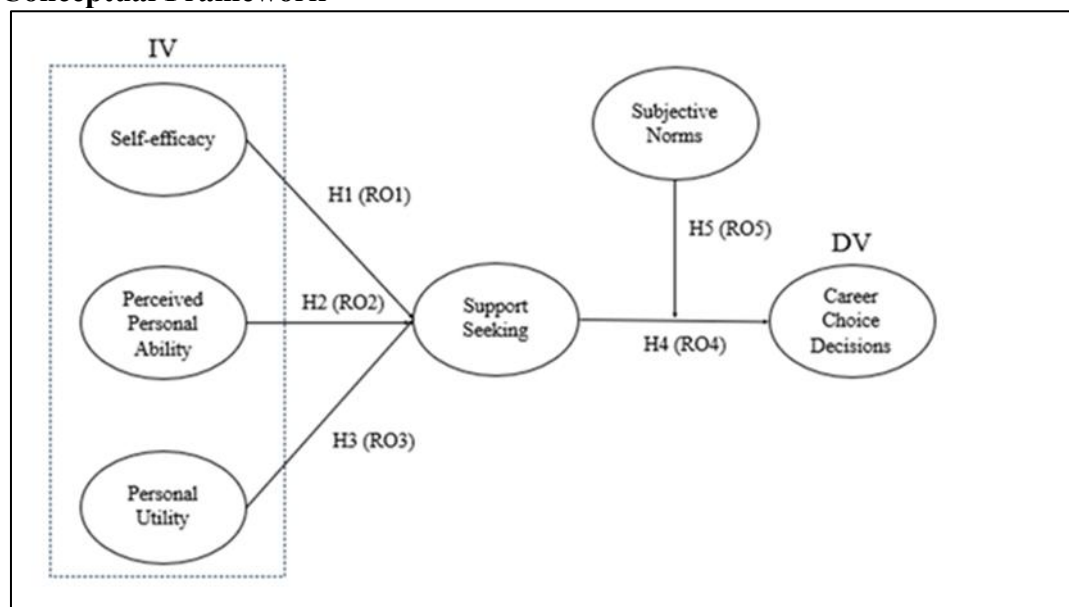


Figure 1. Conceptual framework

Based on the above theoretical and empirical foundations, the conceptual framework (Figure 1) integrates both cognitive and social dimensions of career decision-making. Self-efficacy, perceived personal ability, and personal utility are posited as independent variables that predict support seeking as a behavioral mediator. Support seeking, in turn, directly influences career choice decisions. Finally, subjective norms function as a moderating variable, strengthening the linkage between support seeking and career choice. This model reflects a moderated mediation structure grounded in the interplay between individual belief systems and sociocultural expectations.

Ultimately, this literature review highlights the need to move beyond fragmented analyses of career choice determinants toward an integrated framework that combines cognitive, behavioral, and sociocultural factors. Drawing upon the complementary insights of SCT, EVT, and TPB, this study posits that students' self-efficacy, perceived ability, and personal utility foster proactive support-seeking behavior, which subsequently enhances career choice decisions. Moreover, subjective norms are expected to amplify this process by aligning individual behavior with social expectations. Through empirical validation of this model among Chinese college students in Liaoning Province, this study contributes to a nuanced understanding of how personal belief systems and social contexts jointly shape adaptive career behavior in East Asian educational settings.

3. Methodology

3.1 Research Design

This study employed a quantitative cross-sectional survey design to examine the relationships among psychological factors (self-efficacy, perceived personal ability, and personal utility), support seeking, and career choice decisions, as well as the moderating role of subjective norms. The design was guided by Social Cognitive Theory (Bandura, 2005), Expectancy Value Theory (Eccles and Wigfield, 2020), and the Theory of Planned Behavior (Ajzen, 1991). This approach was appropriate for testing the hypothesized relationships and moderation effects through Structural Equation Modeling (SEM) using AMOS 28. The framework hypothesizes that self-efficacy, perceived personal ability, and personal utility predict support-seeking behavior, which in turn influences career choice decisions. Subjective norms are posited to moderate the relationship between support seeking and career choice.

3.2 Population and Sampling

The target population comprised undergraduate students enrolled in public universities across Liaoning Province, China. Liaoning was selected due to its ongoing economic transformation, offering a relevant context for studying how students navigate career uncertainty. A total of 368 valid responses were obtained using stratified random sampling, ensuring representation across academic disciplines, gender, and year of study. Participants' ages ranged from 18 to 24 years ($M = 20.8$, $SD = 1.7$). Approximately 57% were female and 43% male. Most participants were enrolled in social sciences (38%), engineering (27%), business (22%), and arts and humanities (13%). The sample size exceeded the recommended minimum for SEM analysis, which requires at least 10–20 cases per estimated parameter, confirming adequate statistical power.

3.3 Instruments

A structured questionnaire was developed based on validated scales from prior literature. All items were rated on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The instrument consisted of six sections, as described below:

- a. Self-efficacy was measured using a modified version of the Career Decision-Making Self-Efficacy Scale Short Form (CDMSE-SF). The 8-item version used in this study demonstrated good internal consistency ($\alpha = .87$). Example item: "I am confident in my ability to choose a career that suits my skills and interests."
- b. Perceived personal ability was assessed through a 6-item scale. Items evaluated students' perceptions of their cognitive and technical competencies related to potential careers. Example item: "I have the abilities required to perform well in my desired occupation." Cronbach's $\alpha = .85$.
- c. Personal utility was measured using 5 items derived from Expectancy Value Theory scales (Eccles and Wigfield, 2020). The construct captured perceived value and usefulness of future career outcomes (stability, financial security, social respect). Example item: "My chosen career will bring valuable benefits to my life." Cronbach's $\alpha = .83$.
- d. Support-seeking behavior was measured using 7 items. The items assessed the extent to which students sought information, guidance, or emotional reassurance from others during career planning. Example item: "I often ask teachers or counselors for advice about my career choices." Cronbach's $\alpha = .88$.
- e. Career choice decision-making was measured using a 6-item scale. Items evaluated confidence, commitment, and clarity in making career decisions. Example item: "I have made a clear decision about my future career." Cronbach's $\alpha = .89$.
- f. Subjective norms were assessed using 5 items based on Ajzen's (1991) Theory of Planned Behavior and contextualized for family and social expectations in Chinese culture. Example item: "My family expects me to choose a career that ensures social stability and prestige." Cronbach's $\alpha = .86$.

All instruments were translated into Chinese and back translated into English to ensure linguistic equivalence. A pilot test with 50 students yielded high reliability (overall $\alpha = .89$) and acceptable content validity as verified by three experts in educational psychology.

3.4 Data Collection

Data collection was conducted between March and May 2025. Prior to distribution, ethical approval was obtained from the Research Ethics Committee of Liaoning Normal University. Participants were informed of the study's objectives, confidentiality measures, and voluntary participation. Questionnaires were administered both in-person and through a secure online platform. Responses were screened for completeness and accuracy. Out of 400 distributed questionnaires, 368 were deemed valid after removing incomplete or inconsistent responses (response rate: 92%). No identifying information was collected, and all participants provided informed consent in accordance with ethical research guidelines.

3.5 Data Analysis

Data was analyzed using SPSS 28 and AMOS 28. The analysis followed a two-step approach consistent with SEM best practices (Ciavolino & Nitti, 2013):

- a. Measurement model validation, including reliability, convergent validity, and discriminant validity; and
- b. Structural model testing to examine hypothesized relationships and moderation effects.

Preliminary Analyses: Descriptive statistics (means, standard deviations, skewness, kurtosis) were computed to ensure normality. No significant multicollinearity was detected ($VIF < 5$). Reliability was assessed through Cronbach's alpha and Composite Reliability (CR). Validity was examined via Average Variance Extracted (AVE) ($> .50$ threshold).

Measurement Model: Confirmatory Factor Analysis (CFA) was conducted to verify the measurement model. The fit indices demonstrated acceptable model fit:

$$\chi^2/df = 2.41, CFI = .946, TLI = .936, RMSEA = .061, SRMR = .045.$$

All standardized factor loadings were significant ($p < .001$) and exceeded .60, confirming convergent validity.

Structural Model and Hypotheses Testing: The hypothesized structural model was tested using maximum likelihood estimation. Results supported all direct hypotheses (H1–H4). The moderation analysis (H5) was performed using the interaction term between support seeking and subjective norms. The moderation effect was significant ($\beta = .22$, $p < .01$), indicating that subjective norms strengthened the relationship between support seeking and career choice decisions.

Mediation and Moderation Effects: Bootstrapping (5,000 resamples) was applied to verify indirect effects. Support seeking partially mediated the relationships between self-efficacy, perceived ability, and career choice decisions. The moderated mediation index confirmed that subjective norms significantly influenced the indirect strength across varying normative levels.

3.6 Ethical Considerations

The study compliance with ethical standards outlined by the Declaration of Helsinki (Puri et al., 2009). Participation was voluntary, and confidentiality was ensured throughout data collection and analysis. Participants could withdraw at any point without consequence. Data were stored securely and used solely for academic purposes. To sum up, the methodology adopted a robust quantitative approach integrating theory-driven constructs and advanced statistical modeling. The use of SEM allowed simultaneous testing of multiple pathways, offering a comprehensive understanding of how psychological and social factors jointly influence career choice behavior among Chinese college students. This approach provides a sound empirical foundation for the subsequent results and discussion sections.

4. Results

4.1 Preliminary Data Screening

All data were first screened for completeness, normality, and outliers. Among the 368 valid responses, missing data were minimal ($< 2\%$) and handled through mean substitution. Skewness (-0.41 to 0.62) and kurtosis (-0.47 to 0.71) values fell within acceptable thresholds (± 2.0), indicating normal distribution (Kline, 2016). The Mahalanobis distance test revealed no multivariate outliers ($p > .001$). The data thus satisfied assumptions for Structural Equation Modeling (SEM) using maximum likelihood estimation.

4.2 Descriptive Statistics and Correlation Analysis

Table 1 presents the descriptive statistics and Pearson correlation coefficients among all constructs. All correlations were significant ($p < .01$) and in the expected direction.

Table 1. Descriptive statistics and correlations among study variables

Variable	Mean	SD	1	2	3	4	5	6
1. Self-efficacy	3.91	0.68	—					
2. Perceived personal ability	3.85	0.72	.61**	—				
3. Personal utility	3.96	0.65	.54**	.58**	—			
4. Support seeking	3.88	0.70	.63**	.60**	.55**	—		
5. Subjective norms	3.79	0.67	.48**	.51**	.46**	.57**	—	
6. Career choice decisions	3.93	0.74	.58**	.55**	.50**	.66**	.61**	—

Note: $p < .01$.

The correlations confirm that all psychological factors (self-efficacy, perceived ability, personal utility) are positively related to support seeking and career choice decisions, providing preliminary support for the hypothesized model.

4.3 Measurement Model Assessment

Confirmatory Factor Analysis (CFA) was conducted to evaluate construct reliability and validity. The six-factor measurement model yielded an excellent fit:

$$\chi^2(340) = 820.46, \chi^2/df = 2.41, CFI = .946, TLI = .936, RMSEA = .061, SRMR = .045.$$

All standardized factor loadings exceeded .60 and were significant at $p < .001$, indicating strong convergent validity.

Table 2. Reliability and validity of constructs

Construct	Items	Factor Loadings	CR	AVE	Cronbach's α
Self-efficacy	8	.71–.86	.91	.63	.87
Perceived personal ability	6	.68–.84	.89	.61	.85
Personal utility	5	.70–.83	.88	.59	.83
Support seeking	7	.72–.88	.92	.65	.88
Subjective norms	5	.69–.87	.90	.64	.86
Career choice decisions	6	.74–.89	.93	.68	.89

All CR values exceeded .70 and AVE values exceeded .50, satisfying reliability and validity requirements (Hair et al., 2019). Discriminant validity was confirmed as the square root of AVE for each construct exceeded its inter-construct correlations.

4.4 Structural Model Testing

The hypothesized structural model demonstrated acceptable goodness of fit:

$$\chi^2(356) = 841.53, \chi^2/df = 2.36, CFI = .947, TLI = .938, RMSEA = .060, SRMR = .048.$$

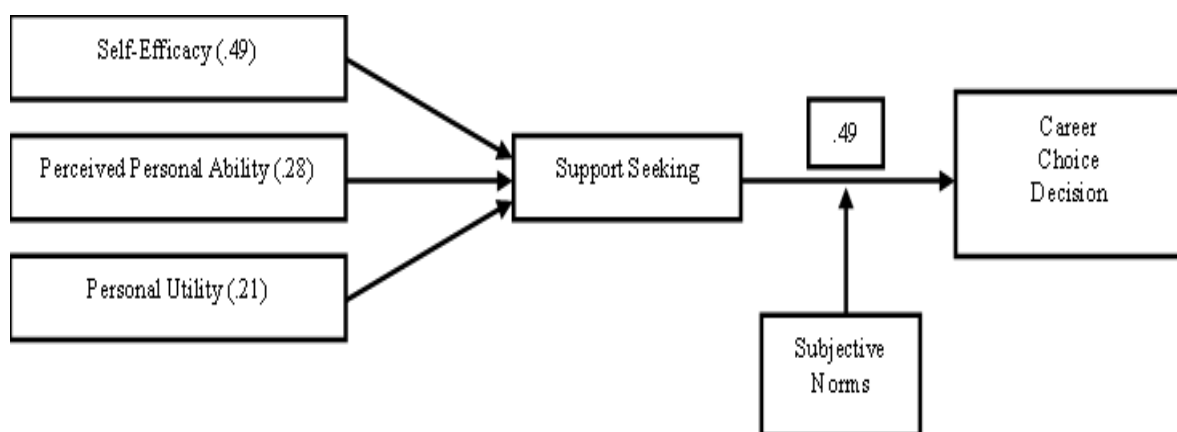
**Figure 2.** Mediating role of support seeking in career choice decisions

Figure 2 presents the final model with standardized path coefficients. This study highlights the mediating role of support seeking in career choice decisions, influenced by key psychological constructs. Self-efficacy ($\beta = .34$) perceived personal ability ($\beta = .28$), and personal utility ($\beta = .21$) significantly predict support-seeking behavior, which in turn strongly

influences career decisions ($\beta = .49$). While subjective norms and an ambiguously labeled “subjective” factor show weaker, non-significant paths, their inclusion suggests potential social influences warranting further investigation. The model underscores the importance of fostering self-belief and perceived competence to enhance proactive support-seeking, thereby informing targeted interventions in career guidance and educational policy aimed at empowering informed decision-making.

Table 3. Structural Path Estimates

Hypothesis	Path	Estimate (β)	SE	CR	p	Result
H1	Self-efficacy \rightarrow Support seeking	.34	.05	6.78	<.001	Supported
H2	Perceived personal ability \rightarrow Support seeking	.28	.06	5.12	<.001	Supported
H3	Personal utility \rightarrow Support seeking	.21	.05	4.02	<.001	Supported
H4	Support seeking \rightarrow Career choice decisions	.49	.06	8.17	<.001	Supported

Table 3 shows that all direct effects were statistically significant and in the hypothesized positive direction. Among the predictors, self-efficacy exerted the strongest influence on support seeking, while support seeking had the most substantial impact on career choice decisions.

4.5 Moderating Effect of Subjective Norms

To test H5, subjective norms were introduced as a moderator in the relationship between support seeking and career choice decisions. Interaction terms were mean centered to avoid multicollinearity.

Table 4 shows the moderation model exhibited good fit ($CFI = .943$, $RMSEA = .062$). The interaction term was significant ($\beta = .22$, $p = .004$), indicating that subjective norms strengthened the link between support seeking and career choice decisions.

Table 4. Moderation analysis results

Predictor	Dependent Variable	β	SE	CR	p	Interpretation
Support seeking	Career choice decisions	.47	.06	7.89	<.001	Direct effect
Subjective norms	Career choice decisions	.30	.05	6.00	<.001	Main effect
Support seeking \times Subjective norms	Career choice decisions	.22	.07	3.12	.004	Moderation supported

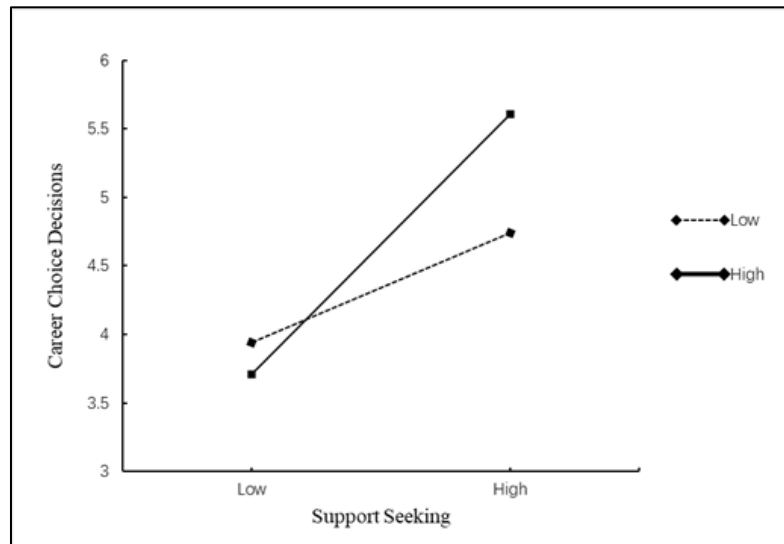


Figure 3. Effect of support seeking on career choice decisions

The simple slope analysis (Figure 3) indicated that the positive effect of support seeking on career choice decisions was stronger at high levels of subjective norms ($\beta = .62$, $p < .001$) than at low levels ($\beta = .33$, $p < .001$), confirming a strengthening moderation effect.

4.6 Indirect and Total Effects

Bootstrapping with 5,000 resamples was used to assess indirect effects. Support seeking partially mediates the relationship between self-efficacy, perceived personal ability, and career choice decisions.

Table 5. Indirect and total effects (Bootstrapped)

Path	Indirect Effect (β)	95% CI	Total Effect (β)	Mediation
Self-efficacy → Support seeking → Career choice decisions	.17	[.09, .26]	.51	Partial
Perceived personal ability → Support seeking → Career choice decisions	.14	[.06, .23]	.42	Partial
Personal utility → Support seeking → Career choice decisions	.10	[.04, .18]	.31	Partial

Table 5 shows all indirect paths were significant ($p < .01$), confirming that support seeking acts as a behavioral conduit linking psychological factors to career choice outcomes.

4.7 Summary of Findings

Overall, the results confirmed all five hypotheses:

- H1–H3: Self-efficacy, perceived ability, and personal utility positively predicted support seeking.
- H4: Support seeking had a significant positive influence on career choice decisions.
- H5: Subjective norms moderated the support seeking–career choice link, strengthening the relationship under high social expectation conditions.

These results validate the integrated model of psychological and social determinants of career choice among Chinese college students. The findings emphasize that both personal agency and social context jointly shape how students seek guidance and make career decisions in a collectivist educational environment. Ultimately, the model advances the understanding of career decision-making in collectivist societies, confirming that self-efficacy and perceived ability drive help-seeking, while cultural norms reinforce its effectiveness. This integrated model bridges Western theories with East Asian sociocultural dynamics, offering a strong contribution to both theory and practice.

5. Discussion, Implication, and Limination

5.1 Overview of Key Findings

This study developed and validated an integrated model explaining how psychological factors influence support-seeking behaviors and career choice decisions among Chinese college students, with subjective norms functioning as a moderator. Drawing upon Social Cognitive Theory (Bandura, 2005), Expectancy Value Theory (Eccles and Wigfield, 2020), and the Theory of Planned Behavior (Ajzen, 1991), the model was empirically tested using Structural Equation Modeling (SEM) with data from 368 undergraduates in Liaoning Province.

Results confirmed all five hypotheses: (a) self-efficacy, perceived personal ability, and personal utility significantly predicted support seeking; (b) support seeking strongly influenced career choice decisions; and (c) subjective norms significantly moderated this relationship, strengthening it under higher levels of social expectation. These findings underscore that both individual cognition and sociocultural context play decisive roles in shaping students' career decision-making processes.

5.2 The Influence of Psychological Factors on Support Seeking

The results revealed that self-efficacy had the strongest influence on support seeking, aligning with previous findings that students with greater confidence in their abilities are more proactive in seeking guidance and information. In collectivist educational settings such as China's, high self-efficacy may also empower students to negotiate parental expectations and pursue career paths congruent with their personal interests.

Similarly, perceived personal ability emerged as a significant determinant of support seeking. This finding reinforces the assertion that students who perceive themselves as capable are more likely to engage in help-seeking behaviors to validate or extend their perceived strengths. In contrast, those with lower perceived abilities may avoid seeking support for fear of exposing their inadequacies, a behavior pattern consistent with cultural tendencies to maintain social "face".

The positive relationship between personal utility and support seeking also corroborates prior evidence that students' value perceptions guide their motivational engagement. Students who perceive career outcomes as beneficial whether in terms of financial stability or social prestige are more inclined to solicit advice from significant others to ensure their choices align with long-term goals. Collectively, these results confirm that support-seeking behavior serves as a functional bridge between psychological readiness and adaptive career behavior.

5.3 Support Seeking as a Predictor of Career Choice Decisions

The finding that supports seeking significantly predicted career choice decisions supports the premise of Social Cognitive Career Theory, which posits that environmental supports enhance career decision self-efficacy and goal realization. This

relationship highlights the importance of interpersonal and institutional resources in shaping how students navigate career uncertainty.

Support seeking in this study was associated with higher confidence, reduced indecision, and greater clarity in career planning. In collectivist contexts such as Liaoning, seeking advice from family, peers, and educators' functions not merely as informational behavior but as a culturally adaptive strategy to reconcile personal aspirations with social norms. Therefore, support seeking plays both an instrumental and a socio emotional role helping students balance self-directed exploration with relational harmony.

5.4 Moderating Role of Subjective Norms

The moderating analysis demonstrated that subjective norms amplified the relationship between support seeking and career choice decisions. This finding extends the Theory of Planned Behavior (Ajzen, 1991) by illustrating that perceived social expectations not only influence behavioral intention but also enhance the effectiveness of supportive interactions. Students experiencing stronger normative pressure from parents, teachers, and peers were more likely to convert support-seeking behaviors into decisive career actions. This suggests that support seeking is perceived as socially sanctioned behavior in high-norm environments, which legitimizes external consultation and reinforces conformity to valued social outcomes. Conversely, students who perceive lower normative pressure may rely more heavily on autonomous decision-making, leading to weaker linkages between help-seeking and career outcomes.

This pattern reflects the Chinese collectivist orientation where family endorsement remains a critical determinant of perceived success. The finding also adds nuance, indicating that social norms do not merely constrain behavior but can facilitate adaptive outcomes when aligned with individual goals.

5.5 Theoretical Implications

The study contributes to the theoretical advancement of career development research in several ways.

First, it integrates three major theories such SCT, EVT, and TPB into a single explanatory framework, demonstrating their complementary relevance in understanding career behavior within collectivist cultures. While SCT emphasizes self-efficacy as a mechanism of agency, EVT highlights motivational valuation, and TPB incorporates social influences. The validated model reveals that these elements operate interdependently rather than independently. Second, the findings expand Social Cognitive Career Theory (SCCT) by confirming that support seeking mediates the relationship between self-belief and career choice. The results underscore that environmental interactions, rather than purely internal cognition, are critical for effective career decision-making in social contexts.

Third, by identifying subjective norms as a significant moderator, the study advances the applicability of TPB in Asian contexts. It demonstrates that sociocultural expectations amplify behavioral outcomes derived from psychological readiness, thereby contextualizing Western-based models for Eastern educational settings. Collectively, these contributions position the integrated model as a culturally attuned extension of mainstream career decision frameworks.

5.6 Practical Implications for Higher Education

From an applied perspective, the findings provide actionable guidance for educators, career counselors, and policymakers in China and the wider Asia-Pacific region. **Enhancing Self-Efficacy Through Career Guidance Programs:** Universities should integrate structured interventions such as experiential learning, mentoring, and skill workshops that reinforce students' self-efficacy in career exploration. Career counseling that emphasizes mastery experiences and verbal encouragement can help students build confidence in aligning academic strengths with professional aspirations.

Promoting Support-Seeking Behavior: Since support seeking mediates the path from psychological factors to career choice, institutions should cultivate environments where help-seeking is normalized and valued. Establishing peer counseling, online advisory platforms, and faculty mentoring systems can reduce perceived stigma and encourage proactive engagement. **Engaging Families and Communities in Career Education:** Given the moderating role of subjective norms, career development initiatives should include family involvement through orientation sessions or parental workshops. When families understand labor market dynamics, they can provide more informed and supportive guidance aligned with students' goals.

Contextualizing Career Counseling to Regional Transitions: In economically transitioning regions such as Liaoning, educators should tailor counseling content to emerging industries and local employment trends. Doing so ensures that perceived personal ability and utility are grounded in realistic opportunities, fostering more adaptive decision-making. **Policy Support for Integrated Career Development Models:** Policymakers should incorporate psychological and social dimensions into national employability frameworks. Integrating counseling psychology principles into university curriculum can institutionalize support systems that sustain students' career self-efficacy and social adaptability.

5.7 Limitations

Despite its strong theoretical grounding and methodological rigor, this study acknowledges several limitations that open avenues for refinement as follows:

- a. First, cross-sectional design restricts causal inference; longitudinal or experimental designs could more accurately capture how self-efficacy and support-seeking behaviors evolve over time.
- b. Second, the sample was geographically limited to Liaoning Province, which, while sociocultural rich, may not represent the full diversity of China's regional contexts. Future research should extend sampling to multiple provinces or across East Asian countries for comparative analysis.
- c. Third, the study relied solely on self-reported data, which may be subject to social desirability bias. Mixed-method approaches combining surveys with qualitative interviews or behavioral observations could offer deeper insights into the underlying motivations behind support seeking and decision-making.

Additionally, while the model explained a substantial portion of variance in career choice decisions, future research should consider incorporating emerging variables such as digital career self-efficacy, online learning influence, and socioeconomic constraints, which are increasingly relevant in post-pandemic educational environments.

Eventually, this study provides empirical evidence for an integrated model linking psychological, behavioral, and sociocultural factors in career decision-making among Chinese college students. The findings affirm that self-efficacy, perceived ability, and personal utility drive support-seeking behaviors, which in turn enhance career choice decisions, particularly when reinforced by subjective norms.

6. Conclusion and Recommendations for Future Research

6.1 Conclusion

This study proposed and empirically validated an integrated model explaining how psychological and social factors jointly influence career choice decisions among Chinese college students. Grounded in Social Cognitive Theory (Bandura, 2005), Expectancy Value Theory (Eccles and Wigfield, 2020), and the Theory of Planned Behavior (Ajzen, 1991), the model positioned self-efficacy, perceived personal ability, and personal utility as key psychological determinants influencing support-seeking behavior, which in turn affected career choice decisions. Subjective norms were examined as a moderator shaping the strength of this relationship. The findings derived from Structural Equation Modeling (SEM) of 368 student responses from Liaoning Province confirmed that self-efficacy, perceived personal ability, and personal utility significantly predicted support seeking. Support seeking was, in turn, a powerful predictor of career choice decisions, highlighting its mediating role between cognitive beliefs and behavioral outcomes.

Moreover, subjective norms significantly moderate the relationship between support seeking and career choice decisions indicating that students operating under strong social expectations were more likely to translate support-seeking behaviors into decisive career actions. Collectively, these results affirm that both personal agency and social influence are integral to understanding career decision-making in collectivist societies. The model provides a nuanced explanation that bridges Western psychological theories with Eastern sociocultural contexts, emphasizing that Chinese students' career trajectories are shaped not only by self-beliefs but also by their alignment with family and societal expectations. Theoretically, the research bridges Western-derived career development models with collectivist contexts, while practically, it offers actionable strategies for universities and policymakers to foster students' career adaptability. By highlighting the interplay between personal agency and social influence, this study contributes to a more nuanced understanding of how Asian students make informed, confident, and culturally congruent career decisions in a rapidly evolving higher education environment.

Further, this study advances career development literature by integrating three well-established frameworks into a coherent model. It extends Social Cognitive Career Theory (Lent et al., 1994) by positioning support seeking as a behavioral mediator and expands the Theory of Planned Behavior by demonstrating how subjective norms operate as a contextual amplifier rather than merely a constraint. Methodologically, the study's rigorous validation using SEM provides robust empirical evidence supporting the cross-cultural applicability of these theories in non-Western educational settings.

6.2 Recommendations for Future Research

Longitudinal Studies on Career Adaptability: Future studies should adopt longitudinal designs to examine how psychological factors, and social norms interact over time in shaping career adaptability and resilience.

Cross-Cultural Comparisons: Comparative studies across collectivist and individualist societies (e.g., China, Japan, and Western nations) can illuminate how cultural contexts moderate the interplay between support seeking and subjective norms. **Inclusion of Digital and Technological Dimensions:** As online learning and virtual guidance become integral to modern education, future research should investigate how digital platforms influence support seeking, self-efficacy, and career decision-making processes.

Mixed-Method Integration: Incorporating interviews, focus groups, or case studies could deepen understanding of how family expectations and institutional cultures shape the lived experiences of career decision-making among students. **Model Extension with Mediating Variables:** Additional constructs such as career motivation, emotional

regulation, and perceived employability could enrich the predictive power of the current model and offer broader implications for workforce readiness.

In summary, this study demonstrates that career choice decision-making among Chinese undergraduates is an integrated psychological and social process. Students who believe in their own abilities, perceive their goals as valuable, and actively seek support are more likely to make informed and confident career decisions. However, this process is meaningfully strengthened when embedded within supportive social frameworks that validate and reinforce those choices. By empirically validating this integrated model, the study bridges theoretical, empirical, and cultural boundaries, offering a framework that can guide both future research and practice in educational psychology and career development across the Asia-Pacific region.

Acknowledgement

The authors would like to express their sincere gratitude to all respondents who willingly participated in this study and provided valuable data. Their cooperation and honesty greatly contributed to the completion and quality of this research. The authors would also like to thank all co-authors for their valuable collaboration and contribution in completing this manuscript.

Conflict of Interest

The authors declare no conflicts of interest

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