

Economic Confidence and Career Decision Self-efficacy in Chinese College Students: The Mediating Role of Career Optimism and the Moderating Role of Career Social Support

Lin Xie^{1,a,*}, Quanwei Shen^{1,b,*}, Bin Gao², Wei Jia³

¹*School of Psychology, Shanghai Normal University, Xuhui, Shanghai, China*

²*School of Education, Shanghai Normal University, Xuhui, Shanghai, China*

³*School of Teacher Education, Shangqiu Normal University, Shangqiu, Henan, China*

^a1462388669@qq.com, ^bpsywe@qq.com

*Corresponding author

Keywords: Economic Confidence, Career Decision Self-efficacy, Career Optimism, Career Social Support, College Students

Abstract: At present, the global economy is in a downward spiral, and China's employment environment has been affected by epidemic, economic, social and other factors, presenting an unprecedentedly complex situation, which makes the employment environment of fresh college student group full of challenges. Most of the previous studies on economic confidence have focused on the consumer, financial and economic sectors, mainly involving consumers and investors in the market. However, few studies have explored the relation between economic confidence and Career Decision Self-Efficacy (CDSE) among college student group in China, and little is known about the mediating and moderating mechanisms of this relation. Based on the Social Cognitive Career Theory (SCCT), the present study examined the effects of economic confidence among 636 Chinese college students from Hubei and Chongqing, as well as the roles of career optimism and career social support in it. The results indicate that: (1) Economic confidence not only directly and positively predicts CDSE but also indirectly predicts it through career optimism; (2) High levels of career social support can serve as a protective factor for economic confidence on CDSE and career optimism. The present study helps to reveal the internal mechanism by which economic confidence affects CDSE, which is useful for educating and guiding college students to adopt an active job-seeking attitude. In addition, the present study selected Chinese college students during the economic downturn as a research sample, extending the SCCT model at the era-specific and culture-specific levels.

1. Introduction

According to the urban unemployment rate survey released by China National Bureau of Statistics (CNBS), the unemployment rate of 16-24 years old in the national urban labour force excluding school students climbed to a historic 18.8% in August 2024. Under the double pressure of the severe economic and employment situation, a significant portion of college students' career efficacy declined, which in turn prevented them from making appropriate career decisions^[1]. The present study focuses on the college student population because they are a group that is preparing for economic independence and entering society.

The economic confidence of college students and the employment problems that may arise from it are not only related to their personal destiny, but also to the stability and harmony of the whole society^[2]. The key point of the current employment work in colleges and universities is to provide college students with adequate social support for their careers, correctly guide them to cope with the employment difficulties under the current severe economic and employment situation, reduce negative emotions, improve efficacy in career decision, and ultimately realize successful employment^[3]. Previous studies have demonstrated that individual personality traits such as economic confidence and optimism of college students have a notable impact on career decision process^[4-5]. The present study intends to explore the relation between economic confidence and Chinese college students' self-efficacy under the double attack of the current complex economic environment background and China's severe employment situation, and to examine two relevant factors: career optimism and career social support.

Economic confidence is stated for the degree of optimism that people have about the state of the economy as a whole and about their personal economic situation. Career decision self-efficacy (CDSE) has been deepened and refined in the social cognitive theory of careers, a concept that refers to the value of confidence in believing that a person will be able to successfully perform the tasks required to make a career decision. The development of CDSE is an ongoing process that encompasses career exploration prior to deciding on a career as well as the planning and implementation to accomplish life goals. It has been found that higher CDSE is associated with more career exploration and higher motivation to pursue a career^[6].

According to Bandura's opinion, self-efficacy has an impact on how individuals create and manage their growth environments, choose and pursue their paths, and ultimately become what they want to be. For contemporary Chinese college students, they are constantly going through college entrance exams and have been studying in an environment of theoretical knowledge, while the emphasis on employment-related social practices is severely lacking^[7]. In the absence of career practice, when they face thinking related to career decision, the low level of economic confidence triggered by the recessionary economy will easily make college students feel confused and overwhelmed about the future, which in turn will lead to a prominent decline in CDSE.

Career optimism is stated for individuals in the labour force pushing themselves to find new career opportunities, as well as individuals in the labour force having positive expectations for future career advancement^[8-9]. The positive impact of career optimism partly reflects the variation in youths' economic capital^[10]. According to SCCT, individuals are enablers of the environment in which they live, not the result of it. Career optimism is necessary for successful career planning and management^[11]. SCCT is relevant to individuals' careers due to its attribute of promoting career optimism, via guiding individuals in setting goals, exploring careers, and ultimately optimizing career decisions. Recent research has implied that career optimism is significantly associated with

job search ^[9].

Career social support refers to the support provided by surrounding significant others and society to individuals in career development. A recent study has implied that the career social support received by individuals was positively correlated with their career maturity, and thus possessed the realistic conditions for generating career optimism ^[12]. It has also been found that college students' career social support affects their life and career satisfaction through core self-evaluation and career adaptability ^[5]. To sum up, career social support can function as a protective factor for career optimism and CDSE.

In summary, our study investigates “how” economic confidence (mediated by career optimism) affects CDSE, and “when” (moderated by career social support) the relation between economic confidence and CDSE changes. Simultaneously, we also examined “when” economic confidence influences Chinese college students' career optimism (moderated by career social support). The present study aims to clarify the cognitive mechanisms and individual differences in the influence of economic confidence on college students' CDSE, and to provide empirical support and theoretical guidance for Chinese college students in the context of a global economic downturn.

2. Methods

2.1. Participants

Participants were recruited by convenience sampling from three public universities in Hubei and Chongqing, China. Data were collected through the *Wenjuanxing* online survey platform, a professional online survey organization in China. 636 participants volunteered to take part in an online survey. The mean age of the participants was 21.63 years ($SD = 1.44$), of which 180 (28.3%) were male and 456 (71.7%) were female. All participants received a payment at the end of the study.

2.2. Measures

2.2.1. Economic Confidence

Economic confidence was measured by the Economic Confidence Scale developed by Xin et al. ^[13], which consists of 8 items, including 4 items reflecting short-term economic confidence and 4 items reflecting long-term economic confidence. All items were rated on a 5-point Likert scale ranging from 1 (significantly better) to 5 (significantly worse), with higher scores representing higher economic confidence. This scale has good reliability in present study (Cronbach's $\alpha = 0.90$).

2.2.2. Career Decision Self-efficacy

Career decision self-efficacy was assessed by the Career Decision Self-Efficacy Scale developed by Taylor & Betz and revised by Peng & Long ^[14], which consists of a total of 38 items containing 5 dimensions, namely, self-assessment, information gathering, goal screening, plan making, and problem solving. All items were rated on a 5-point Likert scale ranging from 1 (almost no confidence) to 5 (complete confidence). A higher score for participants means a higher level of CDSE. In the present study, Cronbach's α for this scale was 0.98.

2.2.3. Career Optimism

We used the Career Optimism Scale developed by Rottinghaus et al. ^[15], which consists of 11

items, all of which are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The higher the score, the more career optimism the participant has. The Cronbach's α coefficient for this scale in present study was 0.88.

2.2.4. Career Social Support

Career social support was measured through the Career Social Support Scale developed by Hou et al. [16], which has a total of 20 items containing 4 dimensions: material support, information support, advice support, and emotional support. All items were rated on a 5-point Likert scale ranging from 1 (hardly any) to 5 (exceptionally much). The higher the score, the more career social support the participant has. The Cronbach's α coefficient for this scale in present study was 0.97.

2.3. Statistical Analyses

The present study used SPSS 25.0 and PROCESS toolbox for data analysis. The collected data were subjected to descriptive statistics, correlation analysis, and mediated model test with moderation. SPSS 25.0 was utilized for performing descriptive statistics and correlation analysis. PROCESS toolbox was used to test the mediated and moderated effects. In present study, 5,000 bootstrap samples were generated, and the 95% bias-corrected confidence interval (95% CI) was used to measure the moderated mediation effect.

3. Results

3.1. Preliminary Analysis

The common method bias test was conducted using Harman's one-way test with unrotated principal component factor analysis of the variables involved. The results showed that there were 11 factors with eigenvalues greater than 1. The variance contribution rate of the first factor was 39.14%, which was below than the critical value of 40%, indicating that the common method bias in present study was not serious.

The results of descriptive statistics and Pearson's correlation analyses (see Table 1) indicated that economic confidence, career social support, career optimism, and CDSE were significantly and positively correlated with each other ($0.36 < r_s < 0.70$, $p_s < 0.01$).

Table 1: Descriptive statistics and correlations among variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1. Economic confidence	3.30	0.79	1			
2. Career optimism	3.25	0.65	0.38**	1		
3. CDSE	3.53	0.59	0.46**	0.70**	1	
4. Career social support	3.35	0.96	0.36**	0.42**	0.47**	1

Note. N = 636, ** $p < 0.01$

3.2. Moderated Mediation Effect Analysis

The moderated mediation model was tested controlling for gender, age, and grade level. The results showed (see Table 2) that after putting career social support into the model, the product term of economic confidence and career social support was significant in predicting both CDSE and career optimism (CDSE: $\beta = 0.06$, $t = 3.14$, $p < 0.01$; career optimism: $\beta = 0.08$, $t = 2.85$, $p < 0.01$), suggesting that career social support moderates not only the direct prediction of economic confidence on CDSE, but also the prediction of economic confidence on career optimism.

Table 2: The moderated mediation model testing results

Regression		Fitness			Significance	
Outcome	Predictors	R	R ²	F(df)	β	t
Career optimism	EC	0.51	0.26	37.44 ⁽⁶⁾ **	0.24	7.72 ^{***}
	CSS				0.22	8.57 ^{***}
	EC×CSS				0.08	2.85 ^{**}
CDSE	Career optimism	0.75	0.57	116.85 ⁽⁷⁾ **	0.50	17.85 ^{***}
	EC				0.14	6.38 ^{***}
	CSS				0.11	5.83 ^{***}
	EC×CSS				0.06	3.14 ^{**}

Note. N = 636, ^a 1 Male, 2 Female. EC = economic confidence; CSS = career social support, ** $p < 0.01$, *** $p < 0.001$, same below.

Simultaneously, we used the product of coefficients approach to analyze moderated mediation effects. As mentioned previously, gender, age, and grade level were added to the model as control variables. The path coefficient results of the model in this study are shown in Figure 1.

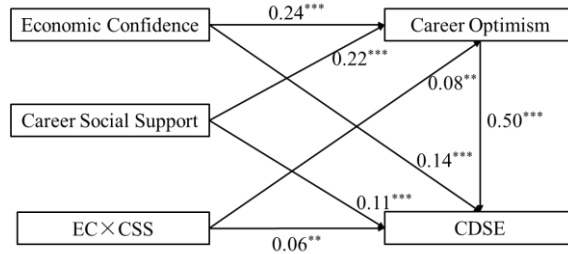


Figure 1: A moderated mediation model

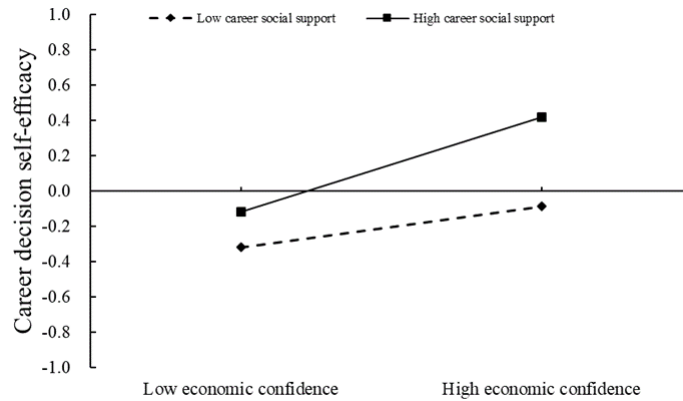


Figure 2: Career social support moderated the relation between economic confidence and CDSE

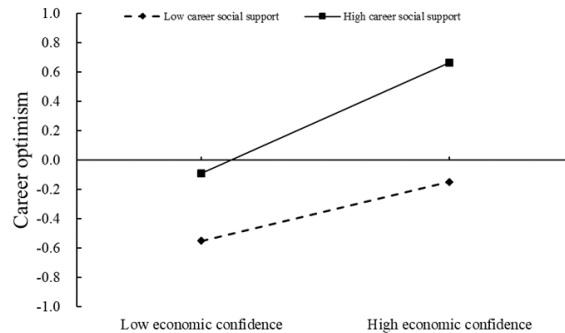


Figure 3: Career social support moderated the relation between economic confidence and career optimism

Further simple slope analyses indicated that, as can be seen in Figure 2, economic confidence had a significant positive predictive effect on CDSE for participants with higher levels of career social support, *simple slope* = 0.20, $t = 6.96$, $p < 0.001$, whereas for participants with lower levels of career social support participants, although economic confidence also positively predicted CDSE, its predictive effect was smaller, *simple slope* = 0.09, $t = 3.01$, $p < 0.01$, suggesting that the predictive effect of economic confidence on CDSE gradually increased as the individual's level of career social support improved trend. As can be seen in Figure 3, for participants with higher levels of career social support, economic confidence had a significant positive predictive effect on career optimism, *simple slope* = 0.31, $t = 7.91$, $p < 0.001$; whereas for participants with lower levels of career social support, economic confidence, although it also had a positive predictive effect on career optimism, its predictive effect was smaller, *simple slope* = 0.16, $t = 4.03$, $p < 0.001$, suggesting that the predictive effect of economic confidence on career optimism tended to gradually increase as the individual's level of career social support increased.

Table 3 shows that the direct effect of economic confidence on CDSE and the mediating role of career optimism in the relation between economic confidence and CDSE are both on an increasing trend at all three levels of career social support, i.e., as the participants' level of career social support increases, economic confidence is not only more likely to directly increase their CDSE, but also more likely to induce career optimism, which in turn increases their CDSE.

Table 3: The moderated mediation effects of career optimism at different levels of career social support

	CSS	Value	SE	Bootstrap 95% CI
Direct effect	2.39 (<i>M-1SD</i>)	0.09	0.03	[0.03, 0.14]
	3.35 (<i>M</i>)	0.14	0.02	[0.10, 0.19]
	4.31 (<i>M+1SD</i>)	0.20	0.03	[0.14, 0.26]
Mediation effect of CO	2.39 (<i>M-1SD</i>)	0.08	0.02	[0.03, 0.13]
	3.35 (<i>M</i>)	0.12	0.02	[0.08, 0.16]
	4.31 (<i>M+1SD</i>)	0.15	0.03	[0.10, 0.22]

Note. CSS = career social support, CO = career optimism.

4. Discussion

4.1. Economic Confidence and Career Decision Self-efficacy

The results of our study indicate that economic confidence is significantly and positively related to its CDSE, suggesting that attitudes held by college students toward the economic environment significantly affect their self-confidence in choosing a career ^[4-5]. As a weathervane of economic prosperity, economic confidence reflects the judgment of social economy and employment situation, and high economic confidence indicates that the social economy and employment situation are in a good state, which improves people's confidence in employment, and then enhances their CDSE ^[13]. According to self-efficacy theory, one of the important factors affecting individual self-efficacy is alternative experiences. The mass media and public opinion have exaggerated the current severe economic and employment situation ^[9]. The widespread concern about layoffs, unemployment, and the difficulty of employment for college graduates has created a large number of negative substitutive experiences ^[4]. College students have gradually formed a self-perception of the economic downturn and the severe employment situation, which has led to a loss of their confidence in the external economic situation and prospects, and thus lowered their CDSE ^[14-15].

4.2. The Mediating Role of Career Optimism

Our study also found that college students' economic confidence had a significant effect on CDSE and that career optimism mediated the relation between economic confidence and CDSE. Possible explanations include: (1) Locus of Control Theory, which suggests that career-optimistic individuals often attribute setbacks or failures to factors within their control (e.g., effort level) rather than to uncontrollable factors (e.g., luck). The poor external economic environment and severe employment situation cannot shake the confidence of career optimistic individuals in themselves and their future, and they firmly believe that their unremitting efforts and dedication can eventually lead to the joy of success ^[15]. (2) Seligman's Explanatory Style Theory suggests that career optimism is a learned explanatory style in the career field, in which career optimistic individuals regard positive events and positive outcomes as internal, stable and universal (related to themselves) factors, and attribute negative events, negative experiences, and frustrations or failures faced by individuals to external, temporary and specific factors. This positive attributional approach allows career-optimistic individuals to be less prone to negative feelings and to lose hope for the future when facing stressful and difficult situations ^[8]. (3) Individuals who are career optimistic are able to buffer the negative effects of stressful and difficult situations by adopting positive coping strategies, and the effectiveness of these coping strategies enables them to be confident in their career decisions even in the face of a poor external economic environment and a difficult employment situation ^[9].

4.3. The Moderating Role of Career Social Support

Our study further found that career social support moderated the direct relation between economic confidence and CDSE and moderated the indirect relation between economic confidence and career optimism. This suggests that college students with high career social support tend to believe that the notable factor influencing their success in employment is the favourable external economic environment, and also believe that they can still take the initiative in choosing a career based on their advantageous resources even when the economic environment is in the doldrums, and thus show more career optimism, which contributes to their CDSE; while college students with low career social support have less confidence in the external economic environment and still tend to be more optimistic about the economic environment than those with low career social support ^[17]. On the other hand, college students with low career social support have low confidence in the external economic environment and still tend to passively adapt to the economic environment, so their career optimism is more negatively affected by economic confidence, which weakens their CDSE ^[2,4]. In conclusion, our study found that career social support can function as a protective factor for CDSE and career optimism. Career social support enhances one's ability to overcome difficulties and serves as a potential resource for overcoming career obstacles, which can be utilized by individuals to develop career interests, form career goals, and take action ^[6,18].

5. Implications, Limitations and Future Directions

The results of our study expand the application of SCCT model in the field of career, enrich the influencing factors of CDSE, and have implications for the intervention practice of Chinese college students' career decision. The present study suggests that: (1) Economic confidence not only directly and positively predicts CDSE but also indirectly predicts it through career optimism; (2) High levels of career social support can serve as a protective factor for economic confidence on

CDSE and career optimism. Our findings can help contemporary Chinese college students to achieve high-quality employment and high levels of lifelong achievement. To a certain degree, the present study extends SCCT model at the era-specific and culture-specific levels.

Any research has its limitations, and our study is no exception. The present study did not consider the role of variables such as socioeconomic status and career interests (e.g., traditional or borderless career orientation). As these factors may influence career decision, this should be controlled for in future research and the impact of key mechanisms used to identify and assess different career orientations on individual CDSE should be explored. The complex relation between economic confidence and CDSE, as well as other multifaceted influences, deserve further exploration in the future.

Acknowledgments

Ethical Approval The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Academic Ethics and Ethics Committee of Shanghai Normal University.

Funding This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Authors' Contribution Lin Xie and Quanwei Shen contributed equally to this work and shared first authorship. All authors contributed to the article and approved the submitted version.

Informed Consent Informed consent was obtained from all participants before the study or, if participants are under 18, from a parent and/or legal guardian.

Data Availability The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- [1] Liu, H., & Ye, J. (2023). *The impact of employment pressure sources on career decision-making difficulties of vocational college students: The mediating role of psychological capital*. *Journal of Wuhan Metallurgical Manager's Institute*, 33(2), 68–72.
- [2] Yao, Q., Li, H., & Huang, W. (2012). *Analysis of college students' career decision-making self-efficacy and their employment pressure*. *Journal of College Counselors*, 4(1), 52–55.
- [3] Alnajjar, H. A., & Abou Hashish, E. A. (2024). *Exploring the effectiveness of the career guidance and counseling program on the perceived readiness for the job market: A lived experience among nursing students*. *Frontiers in Public Health*, 12.
- [4] Kuang, L., Zheng, W., Lin, C., Yang, M., & Liu, L. (2011). *The relationship between economic confidence and career decision-making self-efficacy of college students: The moderator effects of attribution and proactive personality*. *Acta Psychologica Sinica*, 43(9), 1063–1074.
- [5] Stein, C. H., Abraham, K. M., Bonar, E. E., Leith, J. E., Kraus, S. W., Hamill, A. C., Gumber, S., Hoffmann, E., & Fogo, W. R. (2011). *Family ties in tough times: How young adults and their parents view the US economic crisis*. *Journal of Family Psychology*, 25(3), 449–454.
- [6] Amaral, F., Henning, M., Moir, F., & Krügeloh, C. (2024). *A structural equation model analysis of the relationships between career indecision, sense of control, self-efficacy, rumination and depression in high school students*. *Discover Psychology*, 4(1).
- [7] Wen, C., Lyu, X. Y., & Zhang, Q. (2024). *Factors affecting career decision-making of stomatology undergraduate students in China at graduation: A cross-sectional study on selection dilemmas*. *Bmc Medical Education*, 24(1).
- [8] Eva, N., Newman, A., Jiang, Z., & Brouwer, M. (2020). *Career optimism: A systematic review and agenda for future research*. *Journal of Vocational Behavior*, 116, 103287.
- [9] Thompson, D. A., Dent, H. L., & Fine, M. B. (2023). *Factors related to a college student's career optimism and their perception of career services*. *Higher Education Quarterly*, 77(3), 395–409.
- [10] Sikora, J. (2024). *Does career optimism facilitate entry into university and professional employment? A*

- longitudinal examination of Australian data. *Australian Journal of Career Development*, 33(2), 166–177.
- [11] Ebner, K. (2021). Promoting career optimism and career security during career coaching: Development and test of a model. *Coaching: An International Journal of Theory, Research and Practice*, 14(1), 20–38.
- [12] Gao, X., Li, M. T., Fan, W. Q., & Zhang, L. F. (2024). Family system profiles and career decision self-efficacy among Chinese university students: A latent profile analysis. *Current Psychology*, 43(37), 29793–29804.
- [13] Xin, Z., Li, Z., & Yang, Z. (2020). People's economic confidence, financial values, and willingness to expend during the outbreak of COVID-19 in China. *Journal of Central University of Finance & Economics*, (6), 118–128.
- [14] Peng, Y., & Long, L. (2001). Study on the scale of career decision-making self-efficacy for university students. *Chinese Journal of Applied Psychology*, 7(2), 38–43.
- [15] Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The career futures inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment*, 13(1), 3–24.
- [16] Hou, Z., Bai, R., & Yao, Y. (2010). Development of career social support inventory for Chinese college students. *Chinese Journal of Clinical Psychology*, 18(4), 439–442.
- [17] Peterson, G. W., Osborn, D. S., Bullock-Yowell, E., & Hayden, S. C. W. (2024). Reaching further into a theory of career problem-solving and decision-making. *Journal of Career Development*.
- [18] Shi, H. R. (2023). The generation mechanism underlying the career decision-making difficulties faced by undergraduates in China during the COVID-19 pandemic: A qualitative study based on SCCT theory. *Frontiers in Psychology*, 14.