THE IMPACT OF CAREER ENABLING FACTORS AND PROFESSIONAL IDENTITY ON STUDENTS' CAREER READINESS FOR THE JEWELRY INDUSTRY IN SOUTHERN CITY, CHINA[*]
ผลกระทบของปัจจัยที่เอื้อต่ออาชีพและเอกลักษณ์ทางวิชาชีพต่อความพร้อมในอาชีพของนักเรียนสำหรับอุตสาหกรรมเครื่องประดับในเมืองทางตอนใต้ประเทศจีน

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Abstract

Objectives of this research article were to identify and evaluate the key dimensions of Career Enabling Factors (CEF) that significantly shape Students' Career Readiness (SCR) in vocational jewelry education, conducted by the mixed research methods. The quantitative data were collected from 460 samples by using stratified random sampling and complemented by in-depth-interviewing students, teachers, and industry experts. The findings underscored Professional Identity (PI's) as pivotal role in vocational development by linking external supports with internal career commitment. Practical implications were suggested for curriculum design, to be consisted with school-industry collaboration, and policy innovation.

The research findings revealed that career enabling factors had a significant influence on both professional identity and students' career readiness. It was found that professional identity served as a mediator in this relationship. The results from the analysis supported the conceptual assumptions of the CPC-J model and emphasized the important role of

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identity formation in the career preparation process for vocational students.

Keywords: Career Enabling; Professional Identity; Career Readiness; Jewelry Industry

บทคัดย่อ

บทความวิจัยนี้มีวัตถุประสงค์เพื่อระบุและประเมินมิติสำคัญของปัจจัยที่เปิดใช้งาน อาชีพ (CEF) ที่ส่งผลต่อความพร้อมในอาชีพของนักเรียน (SCR) อย่างมีนัยสำคัญใน การศึกษาด้านอาชีวศึกษาด้านอัญมณี การเก็บข้อมูลด้วยแบบสอบถามจากกลุ่มตัวอย่าง 460 คนทั้งนักเรียนครูและผู้เชี่ยวชาญในอุตสาหกรรม และการสัมภาษณ์เชิงลึก ด้วยวิธีการ ผสมผสานในการวิจัย รวบรวมข้อมูลโดยใช้การสุ่มตัวอย่างแบบแบ่งชั้น ผลการวิจัยเน้นย้ำ ถึงอัตลักษณ์ทางวิชาชีพ (PI) ในการพัฒนาอาชีพ โดยการเชื่อมโยงการสนับสนุนภายนอก กับความมุ่งมั่นในอาชีพ แสนอแนะแนวทางในการปฏิบัติเพื่อการออกแบบหลักสูตรให้ สอดคล้องกับความร่วมมือระหว่างโรงเรียนและอุตสาหกรรม และนโยบายนวัตกรรม

ผลการวิจัยพบว่า ปัจจัยที่ช่วยให้เกิดอาชีพ มีอิทธิพลอย่างมากต่อทั้งอัตลักษณ์ทาง วิชาชีพ และในด้านความพร้อมในอาชีพของนักเรียนพบว่า อัตลักษณ์ทางวิชาชีพเป็น สื่อกลางในความสัมพันธ์นี้ ด้วยผลการวิเคราะห์ในการตรวจสอบสมมติฐานเชิงแนวคิดของ แบบจำลอง (CPC-J) และเน้นย้ำถึงบทบาทสำคัญของการสร้างอัตลักษณ์ในกระบวนการ เตรียมความพร้อมด้านอาชีพสำหรับนักศึกษาอาชีวศึกษาด้วย

คำสำคัญ: การส่งเสริมอาชีพ; เอกลักษณ์ทางวิชาชีพ; ความพร้อมในอาชีพ; อุตสาหกรรม เครื่องประดับ

Introduction

In response to industrial transformation and national educational reforms, policies such as the Guiding Opinions on Deepening Industry-Education Integration in 2017 have emphasized the cultivation of skilled talents with both technical competencies and adaptive capabilities (Ministry of Education, 2022; National People's Congress of China, 2022).

To address this gap, this study proposes the Career Preparation Chain for the Jewelry Industry (CPC-J Model), which posits that Career Enabling Factors (CEF) support the development of Professional Identity (PI), thereby enhancing Students' Career Readiness (SCR) (Duarte & Cardoso, 2021).

Additionally, most career development research has concentrated on university students preparing for high-prestige sectors such as finance, technology, and healthcare (Ibarra & Barbulescu, 2020). As a result, the voices and developmental needs of these students remain largely marginalized in mainstream career readiness research (Ibarra & Petriglieri, 2020).

Research Objectives

1. To examine the impact of Career Enabling Factors (CEF) on Students' Career Readiness (SCR) in vocational jewelry education.

2. To investigate how Career Enabling Factors (CEF) contribute to the development of students' Professional Identity (PI).

3. To analyze the effect of Professional Identity (PI) on Students' Career Readiness (SCR).

4. To explore the mediating role of Professional Identity (PI) between Career Enabling Factors (CEF) and Students' Career Readiness (SCR).

Methodology

1. Research Design

This study adopted an explanatory sequential mixed methods in quantitative and qualitative approaches. And Dept-Interview by collected data from the experts in related field of context for qualitative method.

However, the research tools are underwent expert validation to ensure content reliability. Then analyzed with statistical method based on the CPC-J Model and interpreted in thesis format writing to describe more in next step (Wang, J., & Chan, S., 2023).

2. Population and Sample size

The target population of this study consists of students enrolled in jewelry-related vocational programs across three technical schools located in a metropolitan area in Southern China.

To determine the minimum required sample size for the quantitative phase, this study employed Yamane (1967) formula, calculating sample size from a finite population below:

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$$n = \frac{N}{1 + N(e)^2}$$

Where: n = required sample size

N = total population size (students eligible for this study)

e = margin of error (0.05)

With an estimated population of 1,050 students and a 5% margin of error, the required sample size was calculated as: $n \approx 460$

This calculation ensured that the resulting data set would be statistically valid for inferential analysis.

3. Research Instrument

The study served instrument with collected data through questionnaire which comprising 27 items rated on a 5-point Likert scale for quantitative method. And Dept-Interview by collected data from 14 experts in related field of context for qualitative method (Smith & Tan, 2022).

4. Data Collection

By using stratified random sampling approach, were collected with 460 valid responses retained after data screening that for quantitative method, and 14 dept-interviewees were collected as qualitative method explored in-class learning hands-on experiences, personal goals, and feelings of belonging within the jewelry field also (Savickas & Porfeli, 2021).

5. Data Analysis Statistics Used to Analyzed The Data

For demographical analysis on sample size, Mean and Standard Deviation (SD) were used for analyze principle sampling data while Cronbach's Alpha values were calculated for each of the three core constructs based on the cleaned dataset (n = 460). The CEF scale included 11 Likert items, yielding an alpha coefficient of 0.866. The PI scale contained 6 items (α=0.891), while the SCR scale consisted of 8 items (α=0.892) (Sharma & Kim, 2021).

To assess the internal consistency of the measurement scales, Cronbach's Alpha values were calculated for each of the three core constructs based on the cleaned dataset (n=460) (Hirschi & Johnston, 2020). The CEF scale included 11 Likert items, yielding an alpha coefficient of 0.866.

The PI scale contained 6 items (α=0.891), while the SCR scale consisted of 8 items (α=0.892) (Sharma, & Kim, 2021). According to the reliability classification suggested by DeVellis (2016), alpha values above 0.80 indicate excellent reliability. These results demonstrate that all three instruments exhibit high internal consistency and are suitable for subsequent statistical analysis (Johnson, R. et al., 2022).

Results

These results are summarized in Table 1 and demonstrate that all three instruments exhibit high internal consistency, making them suitable for subsequent multivariate regression and path analysis as well.

Score Distribution by Variable (CEF, PI, SCR)

As presented in the descriptive statistics for the three core variables CEF, PI, and SCR reveal notable differences in perceived levels among participants. The mean score for CEF was 2.886 (SD=0.592), indicating a slightly above-average perception of enabling conditions such as training, school resources, and industry exposure. In contrast, PI showed a moderately higher mean of 3.147 (SD=0.703), suggesting that many students have developed some level of affiliation with the jewelry field, though variability remains (Carter et al., 2021).

SCR, however, had a markedly lower mean score of 2.238 (SD=0.737), indicating that students generally felt underprepared to enter the workforce. Across all three variables, observed scores ranged from 1.000 to 5.000, suggesting full-scale use and individual differences in perceived experiences.

The comparison of these means suggests a clear trend of CEF > PI > SCR, highlighting a gradual decline from perceived external support to internal confidence in career preparation. The relatively high standard deviation for PI (0.703) implies that while some students report strong identification with the jewelry profession, others remain uncertain or disconnected. This dispersion may reflect inconsistent educational experiences or limited exposure to professional role models (Fugate et al., 2021). The significantly lower average score for SCR suggests a widespread lack of confidence in employability.

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These patterns reinforce the hypothesis that while external supports and identity development are present, they may not fully translate into readiness for industry participation an insight that validates the CPC-J Model's emphasis on Professional Identity as a key mediating factor.

The data collected from 460 valid responses were analyzed using descriptive statistics, reliability analysis, Pearson correlation analysis, multiple regression analysis, and mediation analysis with 5,000 bootstrapped resamples (Li & Kim, 2024).

The descriptive statistics for the key variables are presented in Table 2. The mean score for Career Enabling Factors (CEF) was 2.886 (SD=0.592). The mean for Professional Identity (PI) was 3.147 (SD=0.703), and for Students' Career Readiness (SCR) was 2.238 (SD=0.737). The minimum and maximum values for all variables ranged from 1.000 to 5.000.

Table 1 Descriptive statistics for Key Study Variables

Variable	No. of Items	Mean	S.D.	Min.	Max.
CEF	11	2.886	0.592	1.000	5.000
PI	6	3.147	0.703	1.000	5.000
SCR	8	2.238	0.737	1.000	5.000

Table 1 presents the Pearson correlation coefficients among the constructs. Significant positive correlations were found between CEF and PI (r=0.497, p<.001), CEF and SCR (r=0.431, p<.001), and PI and SCR (r 0.296, p<.001).

Table 2 Correlation Analysis among Career Enabling Factors, Professional Identity, and Students' Career Readiness

Variables	CEF	PI	CSR
CEF	1	0.497**	0.431**
PI	0.497**	1	0.296**
CSR	0.431**	0.296**	1

The results of the hypothesis testing, including the direct effects and the mediation analysis, are summarized in Table 3. Career Enabling Factors had a significant positive effect on Students' Career Readiness (H1: β=0.431, t=9.02, p<.001) and on Professional Identity (H2: β=0.487, t=10.76, p<.001).

Professional Identity had a significant positive effect on Students' Career Readiness (H3: β=0.296, t=6.34, p<.001). Mediation analysis indicated that Professional Identity partially mediated the relationship between Career Enabling Factors and Students' Career Readiness (H4: β=0.144, z=4.21, p<.001).

Table 3 Path Analysis and Hypothesis Testing Summary

Path	Ho.	β	t-value/z-value	p-value	Results
CEF->SCR	H1	0.431	t=9.02	<.001	Supported
CEF->PI	H2	0.487	t-10.76	<.001	Supported
PI->SCR	H3	0.296	t=6.34	<.001	Supported
CEF->PI->SCR	H4	0.144	Z=4.21 (Sobet)	<.001	Partially Supported

Conclusion The findings confirmed that Career Enabling Factors significantly influence both Professional Identity and Students' Career Readiness, Professional Identity was found to partially mediating this relationship. The mediation analysis results validate the conceptual assumptions of the CPC-J Model and highlight the critical role of identity formation in the career preparation process for vocational students.

Despite these contributions, the study has several limitations. The sample was restricted to three vocational institutions in a single metropolitan area, potentially limiting the generalizability of the results. Additionally, the cross-sectional design captures only a single point in time, making it difficult to assess causal or developmental changes in Professional Identity and Career Readiness over time (Nguyen & Liu, 2024).

Discussion

The findings confirmed all proposed hypotheses. Specifically, CEF demonstrated significant positive effects on both PI and SCR, while PI also significantly influenced SCR. Moreover, the mediation analysis revealed that PI partially mediated the relationship between CEF and SCR, highlighting the importance of identity formation as a bridge between external supports and students' career readiness.

The significant positive relationship between Career Enabling Factors and Students' Career Readiness (H1) aligns with previous research emphasizing the role of educational and industry resources in shaping vocational outcomes (García et al., 2023).

Theoretically, this study contributes to the field by proposing and empirically validating the CPC-J Model, which integrates enabling environments and identity formation within a unified framework. It enhances understanding of how Professional Identity mediates the relationship between external supports and vocational outcomes (Lent & Brown, 2021).

Practically, the findings provide actionable implications for vocational institutions and policymakers. Programs designed to enhance students' employability should focus not only on technical skill training but also embedding identity-building mechanisms, such as mentorship programs, role-model interventions, and professional community engagement, into their curricula (Martin & Evans, 2022).

Body of Knowledge

This study advances theoretical understanding in vocational education by extending the Career Construction Theory and Career Resources Model into the context of jewelry-focused technical programs. By conceptualizing Professional Identity as a mediating mechanism between Career Enabling Factors and Students' Career Readiness, the CPC-J Model provides a nuanced explanation of how external supports are internalized through psychological identity development.

Practically, the findings offer actionable implications for educational institutions, industry stakeholders, and policymakers. Vocational schools are encouraged to integrate structured identity-building modules into their curricula, moving beyond technical training to foster sustainable career commitment. Industry partners can enhance collaboration by providing experiential learning opportunities that reinforce identity construction.
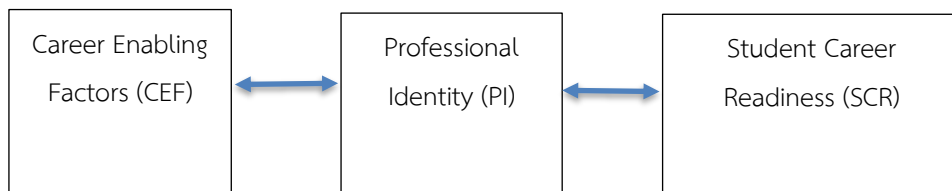
Career Enabling Factors (CEF)	⟷	Professional Identity (PI)	⟷	Student Career Readiness (SCR)

Figure 1 New Knowledge in new concept

Recommendations

Policy Recommendations

1. Integrating Identity into Educational Evaluation Systems.

2. Designing More Coherent and Profession-Linked Progression Pathways.

3. Providing Targeted Policy Support for Identity-Based Programming and School–Industry Collaboration.

Operational Recommendations

This study validated the CPC-J Model structure, confirming the significance of CEF and PI in shaping SCR. However, the model did not account for other influential factors observed during the qualitative phase, such as family expectations, intrinsic motivation, and societal perceptions of vocational education. Future research may refine the model by incorporating these dimensions either as antecedents to PI or as moderators influencing the strength of existing pathways.

Recommendations for Next Research

The findings of this study provide empirical support for the CPC-J Model and offer insights into the role of Professional Identity (PI) in shaping Students' Career Readiness (SCR) through Career Enabling Factors (CEF). Nonetheless, several directions for future research remain pertinent, particularly with regard to the theoretical refinement, methodological development, and contextual extension of the model.

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