

# Sustainable Institutional Environment and Higher Vocational Students' Digital Entrepreneurial Intention in the Border Area of Yunnan Province: Impact of Social Mindfulness and AI Literacy

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[**Abstract**] Digital entrepreneurship is the key to revitalizing the economy, and the institutional environment is relevant to entrepreneurship. Therefore, in November 2024, this study was conducted using 5329 samples of higher vocational students from 8 vocational colleges in the border area of Yunnan Province, China, to study the relationship between sustainable institutional environment and the digital entrepreneurship intention of higher vocational students, as well as the promoting effects of social mindfulness and AI literacy. The results confirm for the first time that the sustainable institutional environment in Yunnan Province of China is positively correlated with the digital entrepreneurship intention of higher vocational students, and social mindfulness and AI literacy have promoting effects. This shows that higher vocational students in the border area of Yunnan Province need not only a sound sustainable system but also a connection between kindness and the ability to apply intelligent tools to fully promote their digital entrepreneurial practices in the future.

[**Key words**] sustainable institutional environment; social mindfulness; AI literacy; digital entrepreneurial intention

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## 1 Introduction

At present, China is facing great economic difficulties and is in urgent need of restoring business prosperity to reverse the crisis (Berman et al., 2024; Li, Zhang & Xiang, 2024a; Sitaridis & Kitsios, 2024). Digital entrepreneurship is an important way to break through the crisis. It has advantages such as low cost and spanning geographical space, so it is favored by college students (Aloulou et al., 2024; Alhajri & Aloud, 2024; Bhuiyan, 2024). However, how to effectively promote digital entrepreneurship in an era where both intelligence and sustainability exist is still unclear (Cavallo, Cosenz & Noto, 2024; Chukwuka & Abude, 2024; Li, Zhang & Xiang, 2024b).

Moreover, the research shows that institutions are correlated with digital entrepreneurship intention (Jiao, Wang & Shi, 2024). On the other hand, the research also confirms that traits and abilities are closely related to digital entrepreneurship intention (Elnadi & Gheith, 2024; Lesinskas et al., 2023). However, whether there is a relationship between sustainable institutional environment and the digital entrepreneurship intention of higher vocational students, and whether the relationship between the two will be affected by social mindfulness and AI literacy are still unclear.

In addition, due to the continuous development of commercial trades between Southeast Asian countries and the border area of Yunnan Province, the entrepreneurial heat in this region continues to rise (Kokkhangplu et al., 2024; Lim & Su, 2024; Liu & Song, 2024). However, there is little research on the participation of higher vocational students in digital entrepreneurship in the border area of Yunnan Province (Chinwadee, Chukiat & Kanchana, 2024; Shi, 2024; Song, Sun & Liu, 2024). Therefore, this study chooses the border area of Yunnan Province to fill in the gaps and hopes to promote the future development of the local digital economy.

Therefore, the purpose of this study is to investigate the relationship between sustainable institutional environment and the digital entrepreneurship intention of higher vocational students in Yunnan Province, China, as well as the promotion effects of social mindfulness and AI literacy, to identify the main causes and promotion mechanisms affecting the future digital entrepreneurship practices of higher vocational students in the border area of Yunnan Province, which will be of great help to revitalizing the local economy.

## **2 Literature review and hypothesis**

### **2.1 Sustainable institutional environment**

Traditionally, the institutional environment is described as the socially shared norms of individual behaviors, values, and beliefs set by the government, and the social framework that constitutes the essence of reality (Chen et al., 2022). With the advent of the intelligent age, the intention of digital entrepreneurship has emerged (Bowen & Morris, 2024; Kencana, Sunarto & Wahidah, 2024; Neff, Weber & Werth, 2024). Therefore, this study defines it as the multi-dimensional policy support provided by the government for sustainable entrepreneurs.

### **2.2 Sustainable institutional environment and digital entrepreneurial intention**

Digital entrepreneurial intention is the preparation process of an individual using the network to start a business (Akhter, Karim & Islam, 2022). In addition, this study describes the sustainable development environment as the diversified policy support provided by the government for sustainable entrepreneurs. The research shows that the system is related to digital entrepreneurial intention (Jiao et al., 2024). As Olarewaju et al. (2024) said, the policy support provided by the government is the key to the development of sustainable entrepreneurship. This is because the government can provide support for potential entrepreneurs in terms of funds and training, which directly inspires their belief in participating in entrepreneurial activities, and will enhance the practical activities of higher vocational students to participate in digital entrepreneurship in the future. Thus the hypothesis:

H1: Sustainable institutional environment is positively related to higher vocational students' digital entrepreneurial intention.

### **2.3 The moderator role played by social mindfulness**

Tian, Wang and Xu (2020) defined social mindfulness as a good trait of an individual. The research has found that traits are correlated with digital entrepreneurial intention (Elnadi & Gheith, 2024). As Dou et al. (2018ab) said, social mindfulness can promote the harmony of interpersonal interaction, which is conducive to the future development of individuals. Therefore, the interaction of diversified sustainable policy support and social mindfulness can make entrepreneurs more humble and improve the access to interpersonal resources, which will help improve the intention of higher vocational students to participate in digital entrepreneurship practices in the future. Thus the hypothesis:

H2: Social mindfulness has a positive moderating effect between sustainable institutional environment and higher vocational students' digital entrepreneurial intention.

### **2.4 The moderator role played by AI literacy**

AI literacy is defined as the ability to enable individuals to collaborate and apply AI effectively (Long & Magerko, 2020). In addition, the research finds that competence is correlated with digital entrepreneurial intention (Lesinski et al., 2023). As Li et al. said, AI literacy can help entrepreneurs analyze information, explore opportunities, and enhance beliefs in the digital environment, which is of great help to entrepreneurship. Therefore, the interaction of diversified sustainability policy support and AI literacy can further enhance entrepreneurs' access to more information, making it easier for them to access opportunity resources, and ultimately driving their sustainable entrepreneurship development. Thus the hypothesis:

H3: AI literacy has a positive moderating effect on the relationship between sustainable institutional environment and higher vocational students' digital entrepreneurial intention.

## **3 Methodology**

### **3.1 Samples and procedures**

The survey took place in November 2024, using the purpose sampling method. Higher vocational students in

the border area of Yunnan Province of China were selected as samples. The survey took an electronic questionnaire to investigate their views on sustainable institutional environment, social mindfulness, AI literacy, and digital entrepreneurship intention. The final valid sample is 5329 (96.89%), among which the highest proportion is female students (3588) at 67.329%.

### 3.2 Measures

Sustainable institutional environment scale; adapted tool from Chen et al. (2022) with 3 factors and 16 questions ( $\alpha=0.95$ ).

Social mindfulness scale; designed by Li and Zhang (2024) with 4 factors and 17 questions ( $\alpha=0.867$ ).

AI literacy scale; designed by Luo (2024) with 1 factor and 5 questions ( $\alpha=0.85$ ).

Digital entrepreneurial intention scale; adapted tool from Li et al. with 2 factors and 8 questions ( $\alpha=0.903$ ).

The SRMR of the whole model is 0.05, and the matching degree is good.

## 4 Results

Sustainable institutional environment has a significant positive impact on higher vocational students' digital entrepreneurial intention ( $\beta=0.183^{***}$ ), and H1 is valid. The interaction between sustainable institutional environment and social mindfulness is significant ( $\beta=0.162^{***}$ ), and H2 is valid. Furthermore, the interaction between sustainable institutional environment and AI literacy is significant ( $\beta=0.158^{***}$ ), and H3 is valid.

## 5 Discussion

### 5.1 Discussion and contribution

The results confirm for the first time that the sustainable institutional environment in the border area of Yunnan Province has a significant positive impact on the digital entrepreneurial intentions of higher vocational students, and social mindfulness and AI literacy have promoting effects. The research conclusions not only fill in the antecedent of the digital entrepreneurship intention of higher vocational students, but also expand the development of the promotion mechanism, which is a breakthrough contribution to the field of digital entrepreneurship, but also is conducive to the sustainable entrepreneurial practice in the border area of Yunnan Province, China.

### 5.2 Limitations and directions

This study only discusses the impact of sustainable institutional environment on the digital entrepreneurship intention of higher vocational students and the promotion effects of social mindfulness and AI literacy, suggesting that future studies can choose more factors to explore, such as psychological richness, improvisation, etc. (Shu & Li, 2024; Zhang & Li, 2024), thus further promoting the development of digital entrepreneurial intention (Khodor, Ar  naga & Ramadani, 2024; Nasir, 2024; Ranieses, 2024; Simba et al., 2024; Umar, Congman & Akram, 2024; Wardoyo, Rusdianti & Purwantini, 2024).

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## Appendix: A

Digital entrepreneurial intention scale ( $\alpha=0.863$ ).

### Propensity

DEI1 I am interested in digital entrepreneurship.

DEI2 I will choose digital entrepreneurship after graduation.

DEI3 I will be well prepared before implementing digital entrepreneurship.

DEI4 I will take an educational program on digital entrepreneurship during my school years.

### Aspiration

DEI5 I have a clear plan for my future career.

DEI6 Digital entrepreneurship should be widely taught in schools.

DEI7 I choose digital entrepreneurship as a way to express my values.

DEI8 I dare to take the consequences even if my business fails.