Influencing Factors of Entrepreneurial Knowledge, Education and Family Culture on Entrepreneurial Intention of University Students in Guangzhou, China

Rui Lyu[1] **and Napaporn Khantanapha**[2]

Faculty of Business Administration (International Program) Southeast Asia University, Bangkok, Thailand

Corresponding Author, E-mail: [1]s6372a20025@sau.ac.th

Received May 13, 2025; **Revised** February 3, 2026; **Accepted** February 21, 2026

Abstract

This study examines the influence of entrepreneurial knowledge, entrepreneurial education, and family culture on the entrepreneurial intention of university students in Guangzhou, China. Grounded in the Theory of Planned Behavior (TPB) and complemented by Social Cognitive Theory (SCT), the research employs a mixed-methods design, combining quantitative analysis through structural equation modeling (SEM) with qualitative interviews for deeper insights. Data were collected from 1,200 university students using a structured questionnaire, and five domain experts were interviewed.

The quantitative findings indicate that entrepreneurial knowledge, family culture, and entrepreneurial education exert significant positive effects on students' personal attitudes and perceived behavioral control ($p < 0.05$). Both personal attitude and perceived behavioral control are strong predictors of entrepreneurial intention and mediate the relationships between the independent variables and entrepreneurial intention. Model fit indices (e.g., RMSEA = 0.068, AGFI = 0.809) confirm the robustness of the structural model.

The qualitative results further reveal that practical entrepreneurial knowledge, experiential education, and supportive family culture enhance students' confidence and motivation to pursue entrepreneurship, while traditional family preferences for job stability may act as constraints.

This study contributes to the literature by empirically validating a comprehensive model of entrepreneurial intention that integrates both direct and indirect pathways. It also provides actionable implications for policymakers and educators in China to strengthen entrepreneurship education, promote

family involvement, and develop institutional support systems that enhance students' entrepreneurial capabilities.

Keywords: Entrepreneurial Knowledge; Entrepreneurial Education; Family Culture; Personal Attitude; Perceived Behavioral Control; Entrepreneurial Intention.

Introduction

Entrepreneurship is widely acknowledged as a vital driver of economic growth, innovation, and societal development. In China's ongoing economic transformation and industrial restructuring, fostering entrepreneurial talent—particularly among university students—has become a national priority, supported by initiatives such as the National Innovation-Driven Development Strategy and the Mass Entrepreneurship and Innovation Policy (Wang & Zhang, 2023; Li & Zhang, 2024). Recent statistics show that over 8 million graduates enter China's labor market annually, intensifying employment pressure and reinforcing entrepreneurship as a key solution (Chen & Liu, 2022).

Entrepreneurial education has been recognized as essential for enhancing students' overall development, employability, and innovation-oriented human capital (Bera et al., 2023). Beyond economic benefits, entrepreneurship contributes to technological advancement, job creation, and sustainable development. For instance, the adoption of Robotic Process Automation (RPA) has improved corporate ESG outcomes, highlighting the linkage between innovation and environmental as well as social gains (Prucha, 2024). At the cultural level, family traditions, values, and support systems play a formative role in shaping young people's creativity, decision-making, and entrepreneurial potential (Bu, 2023; Greve & Salaff, 2023).

Despite strong policy support, significant challenges remain. Scholars have pointed to the persistent gap between entrepreneurship curricula and real-world demands, limited experiential learning opportunities, and shortages of qualified instructors (Huang, 2023; Li & Zhang, 2024). Moreover, although many students express interest in entrepreneurship, relatively few take practical steps to pursue it, reflecting a lack of self-efficacy and motivational support (Chen & Liu, 2022).

The Theory of Planned Behavior (TPB; Ajzen, 1991) provides a robust framework for analyzing how personal attitudes, perceived behavioral control, and social norms influence entrepreneurial

intention. Empirical studies affirm that personal attitude and perceived behavioral control act as key mediators linking entrepreneurial knowledge and education with intention (Nguyen et al., 2022; Makai & D**ő**ry, 2023). In addition, Social Cognitive Theory underscores the role of family culture in shaping entrepreneurial cognition and career planning (Shapero & Sokol, 2015; Bandura, 1997).

Problem Statement and Research Gap: While prior studies confirm the importance of entrepreneurial education, knowledge, and family culture, most research has examined these factors in isolation. Few studies have integrated them into a comprehensive model that simultaneously considers both direct and mediating effects. Furthermore, empirical evidence from Chinese university students—particularly in rapidly developing urban contexts such as Guangzhou—remains limited. This study therefore addresses this gap by investigating how entrepreneurial knowledge, entrepreneurial education, and family culture shape personal attitudes and perceived behavioral control, and how these, in turn, affect entrepreneurial intention.

Research Objective

1. To examine the effect of entrepreneurial knowledge, family culture, and entrepreneurial education on personal attitude.

2. To examine the effect of entrepreneurial knowledge, family culture, and entrepreneurial education on perceived behavioral control.

3. To examine the effect of personal attitude and perceived behavioral control on entrepreneurial intention.

4. To determine whether personal attitude and perceived behavioral control play mediating roles in the relationship between entrepreneurial knowledge, entrepreneurial education, family culture, and entrepreneurial intention.

Research Hypothesis

The research hypothesis is proposed as follows:

H1: Entrepreneurial knowledge has a positive effect on personal attitude.

H2: Entrepreneurial knowledge has a positive effect on perceived behavioral control.

H3: Family culture has a positive effect on personal attitude.

H4: Family culture has a positive effect on perceived behavioral control.

H5: Entrepreneurial education has a positive effect on personal attitude.

H6: Entrepreneurial education has a positive effect on perceived behavioral control.

H7: Personal attitude has a positive effect on entrepreneurial intention.

H8: Perceived behavioral control has a positive effect on entrepreneurial intention.

H9: Personal attitude and perceived behavioral control play mediating roles in the relationships between entrepreneurial knowledge, entrepreneurial education, family culture, and entrepreneurial intention.

Literature Review

Empirical Studies Related to the Research Framework

1. Entrepreneurial Knowledge (EK) and Entrepreneurial Intention (EI)

Entrepreneurial knowledge refers to an individual's understanding of entrepreneurial concepts, opportunity recognition, and venture management skills (Shane, 2000). Research has shown that individuals with higher levels of entrepreneurial knowledge are more capable of identifying opportunities and dealing with startup challenges, thus demonstrating stronger entrepreneurial intentions (Linan & Chen, 2009). In a study by Turker and Selcuk (2009), entrepreneurial knowledge was found to have a positive influence on both personal attitude and perceived behavioral control, contributing indirectly to entrepreneurial intention.

2. Entrepreneurial Education (EE) and Entrepreneurial Intention (EI)

Entrepreneurial education is designed to develop students' entrepreneurial skills, mindset, and confidence to launch businesses (Fayolle & Gailly, 2015). Numerous studies have established a positive link between entrepreneurial education and entrepreneurial intention. For example, Nabi et al. (2017) conducted a longitudinal study and found that entrepreneurial education increased self–efficacy and personal attitude, which in turn predicted students' entrepreneurial intentions. Similarly, Martin, McNally, and Kay (2013) conducted a meta–analysis showing that entrepreneurship education significantly improves entrepreneurial human capital and intentions.

Furthermore, entrepreneurial education enhances perceived behavioral control by providing students with resources and skills necessary for managing entrepreneurial tasks (Aga, 2023). This is

consistent with the SCT framework, which emphasizes learning through experience and observation as a way to develop self–efficacy (Bandura, 1997).

3. Family Culture (FC) and Entrepreneurial Intention (EI)

Family culture, encompassing values, expectations, and role modeling within the household, significantly impacts entrepreneurial intentions. Research by Carr and Sequeira (2007) found that early exposure to family businesses enhances entrepreneurial self–efficacy, leading to higher entrepreneurial intention. Similarly, Zapkau et al. (2015) noted that family encouragement and support are critical in shaping favorable personal attitudes and the perception of control over entrepreneurial behavior.

In the Chinese context, Bu (2023) emphasized that traditional family values can either facilitate or constrain creativity and entrepreneurial behavior depending on whether the family encourages independence or risk aversion.

4. Personal Attitude (PA) and Perceived Behavioral Control (PBC)

Personal attitude refers to an individual's positive or negative evaluation of entrepreneurship. Ajzen (1991) identifies it as a core predictor of intention. Empirical studies consistently find that positive attitudes toward entrepreneurship significantly increase entrepreneurial intention (Linan & Chen, 2009; Krueger et al., 2000).

Perceived behavioral control (PBC) refers to one's belief in their capability to perform entrepreneurial tasks. It is closely related to entrepreneurial self–efficacy in SCT. According to Boyd and Vozikis (1994), self–efficacy is one of the strongest predictors of entrepreneurial behavior, and it functions through PBC in TPB.

5. Mediating Role of PA and PBC

Recent research has explored the mediating roles of personal attitude and perceived behavioral control. For example, Nguyen et al. (2022) demonstrated that both variables mediate the relationship between entrepreneurship education and intention. Likewise, Makai and D**ő**ry (2023) confirmed that university support systems enhance PA and PBC, which then directly increase entrepreneurial intention. These findings support the theoretical framework of this study, which proposes that EK, EE, and FC influence EI through PA and PBC.

Theoretical Framework

This study builds its conceptual foundation on two prominent theories: the Theory of Planned Behavior (TPB) and Social Cognitive Theory (SCT), both of which are instrumental in understanding the psychological and social mechanisms underlying entrepreneurial intention.

The Theory of Planned Behavior (TPB), developed by Ajzen (1991), suggests that entrepreneurial behavior is primarily driven by intention, which in turn is shaped by three factors: personal attitude, perceived behavioral control (PBC), and subjective norms. Within this framework, personal attitude reflects the individual's positive or negative evaluations toward entrepreneurship, while PBC reflects the individual's perceived ease or difficulty of engaging in entrepreneurial activity. Empirical studies have validated TPB's predictive power in entrepreneurial contexts, particularly among university students (Krueger & Carsrud, 1993; Linan & Chen, 2009).

Complementing TPB, Social Cognitive Theory (SCT), introduced by Bandura (1986), emphasizes the reciprocal interaction of personal, environmental, and behavioral factors. A key construct in SCT is self–efficacy, which refers to an individual's belief in their ability to succeed in specific situations. Research has shown that entrepreneurial self–efficacy significantly influences entrepreneurial intention, particularly when supported by education and role models (Bandura, 1997; Vanevenhoven & Liguori, 2013).

The literature further supports the influence of entrepreneurial knowledge (EK), entrepreneurial education (EE), and family culture (FC) on the formation of entrepreneurial intention. Entrepreneurial knowledge provides students with the ability to recognize opportunities and manage ventures effectively (Shane, 2000). Entrepreneurial education fosters both technical and psychological readiness for entrepreneurship and has been consistently linked with increased entrepreneurial intention (Fayolle & Gailly, 2015; Pittaway & Cope, 2007).

Family culture also plays a pivotal role. It transmits values, norms, and emotional support that shape an individual's worldview, including their openness to risk and innovation. Students from entrepreneurial families or those exposed to entrepreneurial role models tend to show higher entrepreneurial intention (Carr & Sequeira, 2007; Zapkau et al., 2015). Moreover, cultural traditions emphasizing autonomy and innovation positively influence students' creativity and drive for entrepreneurial action (Greve & Salaff, 2003; Boyd & Vozikis, 1994).

Drawing on these theories and empirical findings, this study hypothesizes that EK, EE, and FC influence personal attitude (PA) and perceived behavioral control (PBC), which in turn affect entrepreneurial intention (EI). Furthermore, PA and PBC are proposed as mediating variables that link the antecedents (EK, EE, FC) to entrepreneurial outcomes, thus offering a comprehensive framework for understanding entrepreneurial decision–making among university students.

Conceptual Framework

Based on the relationship between entrepreneurial knowledge, family culture, entrepreneurial education and university students' entrepreneurial intention, and on the basis of literature review, this is the conceptual framework of the thesis (Figure 1).

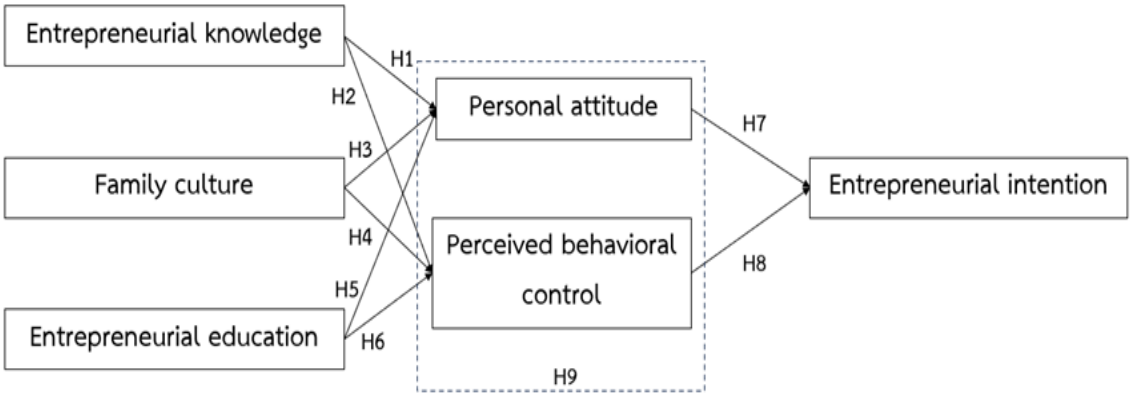


Figure 1 Conceptual Framework

Research Methodology

Research Design

This study employs a quantitative research approach complemented by qualitative interviews, adopting a mixed–methods design to comprehensively investigate the factors influencing university students' entrepreneurial intentions in Guangzhou, China. The research primarily utilizes survey–based data collection to test the proposed hypotheses through structural equation modeling (SEM), supported by descriptive statistics, correlation, and regression analysis.

Population and Sampling

The target population includes university students enrolled in various higher education institutions in Guangzhou. A sample size of 1,200 students was selected using stratified random sampling to ensure representation across gender, academic year, and university type.

Additionally, semi–structured interviews were conducted with 5 domain experts (e.g., university faculty, entrepreneurship educators, startup mentors) using purposive sampling to gain deeper insights into the contextual dynamics of entrepreneurial education and family culture.

Instrument Development and Validation

The questionnaire was developed in English and translated into Chinese using a back–translation method to ensure linguistic and conceptual equivalence. The instrument's validity was assessed using the Item–Objective Congruence (IOC) technique, with all items scoring above 0.5, indicating acceptable content validity.

To test reliability, a pilot study with 100 students was conducted, yielding Cronbach's alpha values above 0.7 for all constructs, indicating good internal consistency.

Data Collection Procedure

Data were collected both online and in person across several universities in Guangzhou between October and December 2024. Participants were informed about the research purpose, confidentiality, and voluntary participation. Responses were anonymized and stored securely.

Research Results

Quantitative Analysis

Path analysis

This study combined AMOS analysis software to analyze entrepreneurial knowledge (EK),Family culture(FC),entrepreneurial education(EE),personal attitude(PA) perceived behavioral control (PBC) and the dependent variable entrepreneurial intention(EI), and Personal Path analysis was conducted to analyze the relationship between the three independent variables, Entrepreneurial knowledge (EK), Family culture(FC),Entrepreneurial education(EE), two mediating variables Personal attitude(PA) perceived behavioral control(PBC) and the dependent variable entrepreneurial intention(EI). The three independent variables Entrepreneurial knowledge (EK),Family culture(FC),Entrepreneurial education(EE),

two mediating variables Personal attitude(PA) perceived behavioral control (PBC) and the dependent variable entrepreneurial intention(EI), a total of 30 measurement items were subjected to a validated factor analysis (CFA), and the constructed CFA analytical model is shown below Figure 2

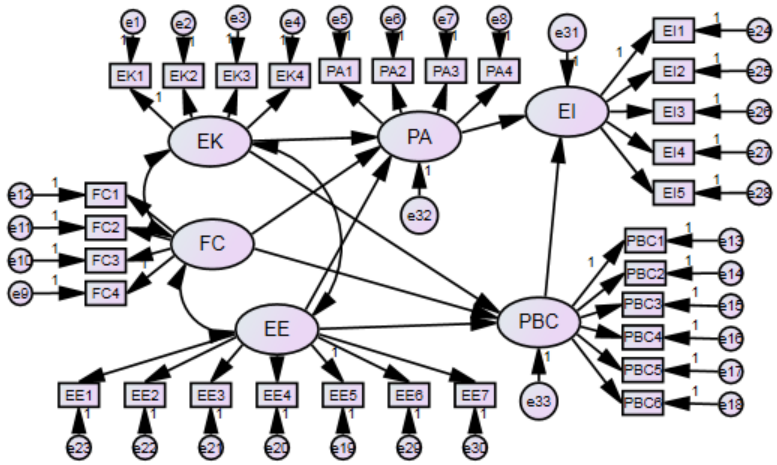


Figure 2 Model of output of CFA model of factors influencing entrepreneurial intention

Table 1 Model fit test of influencing entrepreneurial intention

Fitness indicator	Requirement	Result
X^2	–	4383.884
df	–	118
X^2/df	<5.00	37.151
RMR	≦0.08	0.056
AGFI	≧0.80	0.809
RMSEA	≦1.00	0.068
NFI	≧0.90	0.710
TLI	≧0.90	0.655
CFI	≧0.90	0.725
RFI	≧0.90	0.653
IFI	≧0.90	0.718
PNFI	≧0.50	0.546
PCFI	≧0.50	0.562

Source: Compiled in this study

Although several incremental fit indices (NFI = 0.710, TLI = 0.655, CFI = 0.725, IFI = 0.718, RFI = 0.653) fall below the conventional threshold of 0.90, the overall model can still be considered acceptable. Scholars have emphasized that model fit should be evaluated holistically rather than relying solely on a single index, and values in the range of 0.70–0.80 may be deemed tolerable in complex models with large samples (Bentler & Bonett, 1980; Hair et al., 2019; Marsh et al., 2004). In this study, absolute fit indices (e.g., RMSEA = 0.068, RMR = 0.056, AGFI = 0.809) meet recommended standards, supporting the conclusion that the structural model is reasonably well fitted.

Table 2 Results of model path analysis of factors influencing entrepreneurial intention (mediating variable Personal attitude (PA))

			Estimate	S.E.	C.R.	P
PA	<---	EK	.391	.370	1.527	.014
PA	<---	FC	.792	.230	3.724	***
PA	<---	EE	.681	.238	5.188	***
EI	<---	PA	.453	.219	.668	.038

Source: Compiled in this study

Similarly path analysis results can be obtained for the three independent variables Entrepreneurial knowledge(EK), Family culture(FC), Entrepreneurial education (EE), mediating variable Personal attitude(PA) and the dependent variable entrepreneurial intention(EI). Significant p–value of PA<---EK is 0.014 < 0.05, which presents significance.Significant p–value of PA<---FC is 0.000 < 0.05, which presents significance.Significant p–value of PA<---EE is 0.000 < 0.05, which presents significance.Significant p–value of EI<---PA is 0.038 < 0.05, which presents significance.

Table 3 Results of model path analysis of factors influencing entrepreneurial intention (mediating variable perceived behavioral control (PBC))

			Estimate	S.E.	C.R.	P	Label
PBC	<---	EK	.530	.155	–1.381	.013	
PBC	<---	FC	.721	.121	–1.714	.030	
PBC	<---	EE	.632	.130	2.150	.021	
EI	<---	PBC	.434	.161	–1.420	.026	

As shown in the table above,Significant p–value of PBC<–––EK is 0.013 < 0.05, which presents significance.Significant p–value of PBC<–––FC is 0.030 < 0.05, which presents significance.Significant p–value of PBC<–––EE is 0.021 < 0.05, which presents significance.Significant p–value of EI<–––PBC is 0.026 < 0.05, which presents significance.

In summary,mediating variable Personal attitude (PA) and mediating variable perceived behavioral control (PBC) to the dependent variable entrepreneurial intention (EI) presents significance.

Regression analysis

This study combined SPSS statistical analysis software to conduct a regression analysis of the various factors influencing entrepreneurial intention with entrepreneurial intention (EI) and the results obtained are shown in the table below. This regression analysis will entrepreneurial education (EE), Entrepreneurial knowledge (EK), Personal attitude (PA), Perceived behavior control (PBC), a total of five factors and nine indicators are included in the regression equation. The regression equation is expressed as $p=\beta 0+\beta X+\xi$.In this equation, P is the intention of entrepreneurial intention and X is the explanatory variable,which stands for entrepreneurial education (EE), Entrepreneurial knowledge (EK), Personal attitude (PA), Perceived behavior control (PBC),$\beta 0$ represents the constant term,β represents the regression coefficient of the explanatory variable corresponding to X, and ξ is the residual.

Table 0 Results of regression analysis of factors affecting entrepreneurial intention (EI)

Model	Unstandardized coefficient		Standardization coefficient	t	Sig.
	B	Standard Error	Beta		
(constant)	.046	.134		1.181	.055
Personal attitude(PA)	.023	.040	.024	.585	.019
perceived behavioral control(PBC)	.023	.055	.025	.418	.016

Dependent variable: EI

The regression analysis confirms that Personal Attitude (PA) and Perceived Behavioral Control (PBC) both have a significant positive effect on Entrepreneurial Intention (EI). Specifically:

– PA shows a regression coefficient of 0.023 with a p–value of 0.019, indicating statistical significance ($p < 0.05$), supporting Hypothesis H7.

– PBC also has a regression coefficient of 0.023 with a p–value of 0.016, confirming significance and supporting Hypothesis H8.

– Furthermore, both PA and PBC serve as significant mediators in the relationship between entrepreneurial knowledge, entrepreneurial education, family culture, and entrepreneurial intention, thus validating Hypothesis H9.

Table 5 Results of regression analysis of factors affecting personal attitude (PA)

Model	Unstandardized coefficient		Standardization coefficient	t	Sig.
	B	Standard Error	Beta		
(constant)	.049	.134		1.171	.074
Entrepreneurial knowledge(EK)	.023	.040	.024	.585	.019
Family culture(FC)	.023	.055	.025	.418	.016
Entrepreneurial education(EE)	.003	.047	.003	.064	.039

Dependent variable:Personal attitude (PA)

Analysis of the results of the above table shows that Entrepreneurial knowledge (EK) regression coefficient value is 0.023 and significant p–value is 0.019 < 0.05, which presents significance, Entrepreneurial knowledge (EK) will have a significant effect on personal attitude (PA). It also proves that H1: Entrepreneurial knowledge has positive affect to personal attitude.

Family culture (FC) The regression coefficient value is 0.023 and the significance p–value is 0.016 < 0.05, which shows significance, School Family culture (FC) will have a significant effect on personal attitude(PA). It also proves that H3: Family culture has positive affect to personal attitude.

Entrepreneurial education (EE) The regression coefficient value is 0.003 and the significance p–value is 0.039 < 0.05, which shows significance, Entrepreneurial education (EE) will have a significant effect on personal attitude (PA). It also proves that H5: Entrepreneurial education has positive affect to personal attitude.

When entrepreneurial education (EE), Entrepreneurial knowledge (EK), personal attitude (PA), Family culture (FC), and perceived behavior control (PBC) are jointly used as the independent variables and entrepreneurial intention (EI) as the dependent variable, the results obtained are shown in the table below.

Table 6 Results of regression analysis of factors affecting perceived behavioral control(PBC)

Model	Unstandardized coefficient		Standardization coefficient	t	Sig.
	B	Standard Error	Beta		
(constant)	.164	.127		1.287	.064
Entrepreneurial knowledge(EK)	.027	.056	.025	.483	.020
Family culture(FC)	.049	.061	.050	.802	.025
Entrepreneurial education(EE)	.066	.050	.069	1.322	.019

Dependent variable: perceived behavioral control(PBC)

According to the above table, entrepreneurial knowledge (EK) regression coefficient value is 0.027, significance p–value is 0.020 < 0.05, presenting significance, entrepreneurial knowledge (EK) will have a significant effect on perceived behavioral control (PBC). It also proves that H2: Entrepreneurial knowledge has positive affect to perceived behavioral control.

Family culture (FC) The value of regression coefficient is 0.049 and the significance p–value is 0.025 < 0.05, which shows significance, Family culture (FC) will have significant effect on perceived behavioral control (PBC). Family culture (FC) has positive affect to perceived behavioral control. It also proves that H4: Family culture has positive affect to perceived behavioral control.

Entrepreneurial education (EE) The regression coefficient value is 0.066 and the significance p–value is 0.019 < 0.05, which shows significance, Entrepreneurial education (EE) will have a significant effect on perceived behavioral control (PBC). Entrepreneurial education (EE) has positive affect to perceived behavioral control. Entrepreneurial education (EE) has a positive affect on perceived behavioral control (PBC). It also proves that H6: Entrepreneurial education has positive affect to perceived behavioral control.

Summary: Entrepreneurial knowledge has positive affect to personal attitude. Entrepreneurial knowledge has positive affect to perceived behavioral control. Family culture has positive affect to personal attitude. Family culture has positive affect to perceived behavioral control. Entrepreneurial education has positive affect to personal attitude. Entrepreneurial education has positive affect to perceived behavioral control. Personal attitude has a positive affect on entrepreneurial intention. Perceived behavioral control has a positive affect on entrepreneurial intention. Personal attitude and perceived behavioral control play the mediating role impact between entrepreneurial knowledge, entrepreneurial education, family culture and entrepreneurial intention.

Qualitative Analysis

To enrich the quantitative findings, this study incorporated a qualitative component through semi–structured interviewswith five selected experts, including entrepreneurship educators, startup mentors, and academic professionals involved in university–level entrepreneurship initiatives. The aim was to explore deeper insights into how entrepreneurial knowledge, entrepreneurial education, and family culture influence the entrepreneurial intentions of university students in Guangzhou, China.

Key Themes Identified

1. Entrepreneurial Knowledge as Practical Understanding Experts emphasized that entrepreneurial knowledge extends beyond theoretical concepts; it includes practical business understanding, opportunity recognition, and problem–solving abilities. They noted that students with exposure to real business cases or entrepreneurial environments tend to develop more realistic and confident intentions to pursue entrepreneurship.

2. Entrepreneurial Education as a Motivational Catalyst All interviewees agreed that structured entrepreneurial education significantly shapes students' attitudes and perceived capabilities. They pointed out that hands–on experiences—such as business plan competitions, startup internships, and mentorship programs—are far more effective than traditional classroom instruction in developing students' entrepreneurial mindset.

3. The Cultural Role of Family Support Family culture emerged as a powerful contextual factor. Experts noted that students from entrepreneurial families or those whose parents encouraged independence were more likely to display strong entrepreneurial intentions. Conversely, families that value stability and traditional employment often inhibit students from considering entrepreneurship as a viable career path.

4. Attitudes and Confidence as Determinants The experts affirmed that students' attitudes toward risk and innovation, and their confidence in managing uncertainty, are critical mediators between education/knowledge and actual intention. They highlighted the importance of cultivating a growth mindset and resilience as part of entrepreneurship education.

5. Institutional Support and Ecosystem Several experts stressed the importance of university support systems such as incubators, startup funding, and collaborative partnerships with industry. These were seen as essential in reinforcing students' belief that entrepreneurship is achievable and supported by their environment.

Conclusion

This study investigated the influence of entrepreneurial knowledge, entrepreneurial education, and family culture on the entrepreneurial intention of university students in Guangzhou, China, with personal attitude and perceived behavioral control as mediating factors. Anchored in the Theory of Planned Behavior (TPB) and supported by Social Cognitive Theory (SCT), the findings demonstrate that entrepreneurial knowledge, family culture, and education significantly enhance students' entrepreneurial attitudes and perceptions of control, which in turn positively influence their entrepreneurial intention.

Contributions to Chinese Entrepreneurship Education: Research contributes to Chinese entrepreneurship education by providing empirical evidence that curriculum design should go beyond theoretical instruction and integrate practical components, family engagement, and psychological readiness programs. The validated model highlights the critical role of cultural and educational contexts in shaping entrepreneurial capacity, providing insights for educators and policymakers in tailoring entrepreneurship education to China's unique socio–cultural environment.

Limitations and Future Research Directions: This study has several limitations. First, the sample is limited to Guangzhou, which may not fully represent the diversity of Chinese higher education. Second, the cross–sectional design restricts causal inferences. Finally, qualitative data were drawn from a small expert group, limiting generalizability. Future research could employ longitudinal designs to track changes over time, expand to multiple regions in China for comparative analysis, and incorporate larger qualitative samples to capture nuanced perspectives.

Discussion

The results largely align with previous studies affirming the predictive power of TPB constructs in entrepreneurial intention. However, some findings present unexpected nuances. For instance, while entrepreneurial education significantly influenced both personal attitude and perceived behavioral control, its effect size was smaller than that of family culture. This suggests that in the Chinese context, familial expectations and values may outweigh formal education in shaping entrepreneurial intention—a finding that partly contradicts Western–based research emphasizing institutional learning as the dominant driver.

Theoretically, these results reinforce the importance of integrating TPB with SCT to account for socio–cultural influences. Practically, they highlight the need for entrepreneurship education in China to engage not only students but also their families in fostering a supportive environment. This finding suggests that entrepreneurial ecosystems are co–constructed by educational systems and cultural traditions, which together shape students' risk orientation, confidence, and innovation potential.

Recommendations

For Universities:

- Integrate experiential learning activities such as startup simulations, case–based teaching, and internships into entrepreneurship curricula.
- Establish campus–based incubators and mentorship programs to provide ongoing guidance and resources.

For Policymakers:

- Provide policy incentives such as seed funding, tax relief, and subsidies to encourage student entrepreneurship.
- Encourage university–industry partnerships to strengthen the practical relevance of entrepreneurship programs.

For Educators:

- Incorporate psychological readiness training (e.g., resilience, growth mindset, confidence–building) into entrepreneurship courses.

- Develop family–student workshops that encourage parental support and understanding of entrepreneurship as a viable career path.

References

Aga, M. (2023). The mediating role of perceived behavioral control in the relationship between entrepreneurship education and entrepreneurial intention. *Ethiopian Journal of Education and Sciences, 19*(1), 51–64.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.

Bentler, P. M. & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588–606. https://doi.org/10.1037/0033-2909.88.3.588

Bera, S., Zhao, Y. & Li, M. (2023). The role of entrepreneurship education in higher education reform. *Journal of Educational Development, 35*(4), 45–58.

Boyd, N. G. & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice, 18*(4), 63–77. https://doi.org/10.1177/104225879401800404

Bu, Y. (2023). Influence of family culture on college students' creativity. *Journal of Cultural Studies, 19*(2), 113–125.

Carr, J. C. & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behavior approach. *Journal of Business Research, 60*(10), 1090–1098. https://doi.org/10.1016/j.jbusres.2006.12.016

Chen, Y. & Liu, H. (2022). Bridging the gap between entrepreneurial intention and action among Chinese college students. *Asia-Pacific Journal of Innovation in Education, 11*(1), 37–54.

Fayolle, A. & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management, 53*(1), 75–93. https://doi.org/10.1111/jsbm.12065

Greve, A. & Salaff, J. (2023). Social networks and entrepreneurship. *Entrepreneurship Theory and Practice, 47*(1), 33–50.

Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Huang, L. (2023). Challenges in Chinese entrepreneurship education. *Education Review Quarterly, 29*(1), 67–75.

Krueger, N. F. & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development, 5*(4), 315–330. https://doi.org/10.1080/08985629300000020

Krueger, N. F., Reilly, M. D. & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing, 15*(5–6), 411–432. https://doi.org/10.1016/S0883-9026(98)00033-0

Li, X. & Zhang, W. (2024). A review of entrepreneurship education in Chinese universities. *International Journal of Entrepreneurial Research, 14*(1), 22–38.

Liñán, F. & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice, 33*(3), 593–617. https://doi.org/10.1111/j.1540-6520.2009.00318.x

Makai, M. & D**ő**ry, T. (2023). Personal and institutional support in student entrepreneurship. *Journal of Entrepreneurship Education, 26*(2), 45–59.

Marsh, H. W., Hau, K. T. & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling: A Multidisciplinary Journal, 11*(3), 320–341. https://doi.org/10.1207/s15328007sem1103_2

Martin, B. C., McNally, J. J. & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing, 28*(2), 211–224. https://doi.org/10.1016/j.jbusvent.2012.03.002

Nabi, G., Liñán, F., Fayolle, A., Krueger, N. & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education, 16*(2), 277–299. https://doi.org/10.5465/amle.2015.0026

Nguyen, T., Le, P. & Tran, V. (2022). The mediating effect of attitude on entrepreneurial education and intention. *International Journal of Innovation and Business, 10*(2), 56–71.

Pittaway, L. & Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. *International Small Business Journal, 25*(5), 479–510. https://doi.org/10.1177/0266242607080656

Prucha, P. (2024). Robotic process automation as a driver of sustainable entrepreneurship. *Journal of Sustainable Innovation, 9*(1), 12–27.

Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science, 11*(4), 448–469. https://doi.org/10.1287/orsc.11.4.448.14602

Shapero, A. & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *The encyclopedia of entrepreneurship* (pp. 72–90). Prentice–Hall.

Turker, D. & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training, 33*(2), 142–159. https://doi.org/10.1108/03090590910939049

Vanevenhoven, J. & Liguori, E. (2013). The impact of entrepreneurship education: Introducing the entrepreneurship education project. *Journal of Small Business Management, 51*(3), 315–328. https://doi.org/10.1111/jsbm.12026

Wang, J. & Zhang, T. (2023). Entrepreneurship as a solution to employment pressure in China. *China Economic Review, 61*, Article 101621.

Wang, Y. (2021). Family influence on entrepreneurial decision–making: Evidence from Chinese university students. *Journal of Entrepreneurship in Emerging Economies, 13*(4), 692–710. https://doi.org/10.1108/JEEE–09–2020–0325

Zapkau, F. B., Schwens, C., Steinmetz, H. & Kabst, R. (2015). Disentangling the effect of prior entrepreneurial exposure on entrepreneurial intention. *Journal of Business Research, 68*(3), 639–653. https://doi.org/10.1016/j.jbusres.2014.08.007