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Research Article

Factors Influencing the Entrepreneurial Intentions of Economics Students in Afghanistan: The Mediating Roles of Attitude toward Entrepreneurship and Entrepreneurial Self-Efficacy

Baz Mohammad Mubariz

Department of Economics, Termez University of Economics and Service, Ministry of Specialized Higher and Secondary Education of the Republic of Uzbekistan

Corresponding Author, E-mail; bmobariz226@gmail.com

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Abstract. Entrepreneurship is widely regarded as a central mechanism for economic growth, job creation, and poverty reduction, yet it remains understudied in fragile and conflict-affected economies such as Afghanistan. This study examines the factors that shape the entrepreneurial intentions of final-year economics students at ten Afghan universities, focusing on the indirect pathways through which university support and family support influence entrepreneurial intention

via two mediating variables: attitude toward entrepreneurship and entrepreneurial self-efficacy. Grounded in the Theory of Planned Behavior and Social Learning Theory, a cross-sectional quantitative survey was administered to 192 sixth- and eighth-semester economics students, and the data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4. The measurement model demonstrated satisfactory reliability, convergent validity, and discriminant validity. The structural model indicated that attitude toward entrepreneurship ($\beta = 0.454$, $p < .001$) and entrepreneurial self-efficacy ($\beta = 0.172$, $p < .01$) both exerted positive, significant direct effects on entrepreneurial intention. Of the ten hypothesized indirect pathways, only two were supported: university support for the development of entrepreneurial characteristics increased entrepreneurial intention through attitude toward entrepreneurship ($\beta = 0.317$, $p < .001$), and family support for autonomy promotion increased entrepreneurial intention through entrepreneurial self-efficacy ($\beta = 0.045$, $p < .05$). Conversely, family support for volitional functioning exerted a significant negative indirect effect through attitude toward entrepreneurship ($\beta = -0.128$, $p < .001$), and university support for concept development showed an unexpected negative indirect effect through attitude ($\beta = -0.110$, $p < .05$). The model explained 33.3% of the variance in attitude, 26.9% in self-efficacy, and 29.9% in entrepreneurial intention. More than 93% of respondents reported above-average entrepreneurial intention, despite weak or negative university-support pathways, suggesting that Afghan students' willingness to pursue entrepreneurship is driven more by necessity and family dynamics than by formal institutional support. The findings offer practical implications for university curricula, entrepreneurship policy, and family-oriented interventions in Afghanistan and comparable developing-country contexts.

Keywords: entrepreneurial intention; entrepreneurial self-efficacy; attitude toward entrepreneurship; university support; family support; PLS-SEM; Afghanistan

INTRODUCTION

Entrepreneurship has become one of the most extensively studied phenomena in economics and management over the past four decades, owing to its recognized contribution to innovation, job creation, and structural economic transformation (Achchuthan & Nimalathasan, 2012). Beyond its economic function, entrepreneurship is increasingly viewed as a practical response to socioeconomic problems such as unemployment, poverty, and labor out-migration, prompting governments and higher-education institutions across both developed and developing economies to embed entrepreneurial training within academic curricula (Kwaku & Ellis, 2020; Greeni et al., 2022). In many high-income countries, entrepreneurship education is now integrated across disciplines and reinforced through dedicated courses, incubators, and start-up competitions (Achchuthan & Nimalathasan, 2012). Developing economies, including Indonesia and Iran, have likewise reported expanding entrepreneurial ecosystems that support economic diversification and employment generation (Genius, 2025; Marius, 2025).

Afghanistan presents a starkly different picture. Despite a young and rapidly growing population, the country continues to experience acute unemployment, widespread poverty, and large-scale labor migration, and empirical research on

entrepreneurial behavior in this context remains sparse (Human Rights Watch, 2025; USAID, 2025). Government capacity to absorb university graduates into public employment is limited, and reliance on public-sector job creation is neither sustainable nor sufficient (Roue et al., 2019). Under these conditions, cultivating entrepreneurial intention among university students transforming them from job-seekers into job-creators represents a potentially high-leverage policy lever (Kwaku & Ellis, 2020).

Entrepreneurial intention is widely recognized in the literature as the most proximal and reliable predictor of actual entrepreneurial behavior (Greeni et al., 2022; Krueger et al., 2000). Ajzen's (1991) Theory of Planned Behavior (TPB) positions intention as the direct antecedent of behavior, shaped by attitude, subjective norms, and perceived behavioral control. Building on this foundation, entrepreneurship scholars have repeatedly shown that attitude toward entrepreneurship and entrepreneurial self-efficacy are among the strongest and most consistent predictors of entrepreneurial intention (Liñán & Chen, 2009; Zhao et al., 2005). What remains comparatively underexplored particularly outside Western and East Asian samples is how contextual sources of support, namely universities and families, shape entrepreneurial intention indirectly through these two psychological mechanisms (Fayolle & Liñán, 2014).

This study addresses that gap by examining the entrepreneurial intentions of final-year economics students at ten universities across Afghanistan. Specifically, it investigates whether three dimensions of university support (support for entrepreneurial-characteristic development, support for entrepreneurial-concept development, and entrepreneurship educational support) and two dimensions of family support (promotion of autonomy and promotion of volitional functioning) influence entrepreneurial intention through the mediating roles of attitude toward entrepreneurship and entrepreneurial self-efficacy. In doing so, the study extends the Theory of Planned Behavior and Social Learning Theory (Bandura, 1997) into an under-researched, conflict-affected setting, and offers evidence that can inform university curriculum design, family-oriented interventions, and national entrepreneurship policy in Afghanistan and comparable developing economies.

Significance of the Study

The relevance of this research is underscored by Afghanistan's deteriorating socioeconomic indicators. According to Human Rights Watch (2025), approximately 23.7 million people in Afghanistan required humanitarian assistance in 2024, and USAID (2025) projects that more than half of the population will remain in need of humanitarian support through 2025. While humanitarian assistance addresses immediate needs, its long-term effect on poverty reduction is limited; entrepreneurship, by contrast, offers a more sustainable pathway to income generation and employment creation (Hussain et al., 2014; Ifeoma et al., 2018). The

World Bank (2022) reports that Afghanistan's economic output contracted sharply following the political transition of 2021, reinforcing the urgency of identifying domestic mechanisms such as youth entrepreneurship capable of supporting recovery (Nguyen et al., 2018).

Unemployment among educated youth is a further concern: many university graduates are unable to secure employment commensurate with their qualifications, a pattern that intensifies migration pressures (Beugelsdijk, 2003; Deli, 2011). By clarifying which forms of university and family support translate into stronger entrepreneurial attitudes, self-efficacy, and ultimately entrepreneurial intention, this study aims to provide evidence that policymakers, universities, and families can use to design more effective interventions.

Research Objectives

The main objective of this study is to examine the factors influencing the entrepreneurial intentions of economics students at Afghan universities. The specific objectives are (a) to examine the effects of university support for entrepreneurial-characteristic development, entrepreneurial-concept development, and entrepreneurship education on entrepreneurial intention through the mediating roles of attitude toward entrepreneurship and entrepreneurial self-efficacy; and (b) to examine the effects of family support for autonomy promotion and volitional-functioning promotion on entrepreneurial intention through the same two mediators.

Research Hypotheses

H1. University support for the development of entrepreneurial characteristics has a positive effect on entrepreneurial intention through attitude toward entrepreneurship.
H2. University support for the development of entrepreneurial concepts has a positive effect on entrepreneurial intention through attitude toward entrepreneurship.
H3. University educational support for entrepreneurship has a positive effect on entrepreneurial intention through attitude toward entrepreneurship.
H4. University support for the development of entrepreneurial characteristics has a positive effect on entrepreneurial intention through entrepreneurial self-efficacy.
H5. University support for the development of entrepreneurial concepts has a positive effect on entrepreneurial intention through entrepreneurial self-efficacy.
H6. University educational support for entrepreneurship has a positive effect on entrepreneurial intention through entrepreneurial self-efficacy.

H7. Family support for autonomy promotion has a positive effect on entrepreneurial intention through attitude toward entrepreneurship.
H8. Family support for volitional functioning has a positive effect on entrepreneurial intention through attitude toward entrepreneurship.
H9. Family support for autonomy promotion has a positive effect on entrepreneurial intention through entrepreneurial self-efficacy.
H10. Family support for volitional functioning has a positive effect on entrepreneurial intention through entrepreneurial self-efficacy.

Background Studies

The Afghan case is also useful for testing the boundary conditions of entrepreneurial-intention theory. Most influential studies underpinning TPB-based models were conducted in stable, resource-rich economies with mature entrepreneurship-support ecosystems (Krueger et al., 2000; Shirokova et al., 2016). Whether university and family support operate the same way in a low-resource, high-uncertainty, culturally conservative setting is an open empirical question that this study is positioned to answer. The remainder of the paper proceeds as follows: Section 2 reviews the conceptual, theoretical, and empirical literature and develops the study's conceptual framework; Section 3 describes the research methodology; Section 4 presents and discusses the results; and Section 5 concludes with implications, limitations, and directions for future research.

Conceptual Foundations

Entrepreneurship is generally understood as a dynamic process of value creation through opportunity recognition, resource organization, innovation, and risk-taking (Shane & Venkataraman, 2000). Schumpeter (1934) was among the first to characterize entrepreneurs as agents of "creative destruction" who transform markets through innovation, while Gartner (1985) broadened the concept beyond firm founding to encompass the wider set of behaviors directed at identifying and exploiting opportunities.

Entrepreneurial intention refers to an individual's conscious and deliberate commitment to establishing a new venture in the future, and it is treated in the literature as the most proximate antecedent of entrepreneurial behavior (Ajzen, 1991; Krueger & Carsrud, 1993). Liñán and Chen (2009) argue that entrepreneurial intention operates as the mechanism through which attitudes, subjective norms, and perceived behavioral control translate into observable start-up activity.

Attitude toward entrepreneurship denotes an individual's favorable or unfavorable evaluation of entrepreneurship as a viable career path. Where entrepreneurship is perceived as a source of personal satisfaction, economic reward, and social value, individuals are more likely to hold favorable attitudes and, in turn, stronger entrepreneurial intentions (Fayolle & Liñán, 2015; Krueger et al., 2000).

Entrepreneurial self-efficacy, rooted in Bandura's (1997) Social Learning Theory, refers to an individual's belief in their own capacity to successfully perform entrepreneurial tasks such as opportunity recognition, resource mobilization, and venture management (Chen et al., 1998). Individuals with higher entrepreneurial self-efficacy are consistently found to be more likely to pursue entrepreneurship as a career choice (Zhao et al., 2005).

Types of Entrepreneurship

Because the questionnaire items underlying this study's constructs draw on a broad conception of entrepreneurial activity, it is useful to briefly distinguish the principal forms of entrepreneurship discussed in the literature. Opportunity-based or innovative entrepreneurship develops through the recognition and exploitation of new market opportunities, typified by technology start-ups that introduce novel products or services (Schumpeter, 1934). Individual entrepreneurship refers to the creation and management of small-scale ventures by a single founder or a small team, generally oriented toward income generation and incremental growth, such as a local retail shop (Miller, 1983).

Corporate entrepreneurship, or intrapreneurship, involves the pursuit of innovation and new business initiatives within existing organizations for example, a dedicated innovation unit inside a large firm (Zahra & Wright, 2011). Social entrepreneurship applies entrepreneurial methods to the solution of community and social problems while maintaining financial sustainability, such as social enterprises that employ vulnerable populations (Zahra & Wright, 2011). Technological and knowledge-based entrepreneurship converts scientific and technical knowledge into commercial value, commonly associated with software and applied-research ventures. Finally, institutional or policy-oriented entrepreneurship refers to efforts by individuals, organizations, or policymakers to reform regulations and institutional structures in ways that support innovation and start-up activity (Zahra & Wright, 2011). Economics students in the Afghan context most commonly express intentions oriented toward individual and opportunity-based entrepreneurship, given the prevailing scarcity of formal-sector employment (Deli, 2011).

Theoretical Frameworks

Several complementary theories inform the present study. Ajzen's (1991) Theory of Planned Behavior (TPB) proposes that behavioral beliefs shape attitude, normative beliefs shape subjective norms, and control beliefs shape perceived behavioral control, with all three jointly determining intention (Robert et al., 2011). Shapero and Sokol's (1982) Entrepreneurial Event Theory complements TPB by emphasizing perceived desirability, perceived feasibility, and propensity to act as triggers of entrepreneurial intention, often activated by displacing life events such

as job loss. Kahneman and Tversky's (1979) Prospect Theory helps explain why individuals facing constrained employment prospects may be more willing to accept the risks associated with venture creation.

Social Network Theory (Aldrich & Zimmer, 1986) highlights the role of social ties in providing information, capital, and role models that facilitate opportunity recognition, while Resource-Based Theory (Barney, 1991) emphasizes that access to valuable and difficult-to-imitate resources human capital, finance, and networks supports venture creation. Bandura's (1997) Social Learning Theory underlies the self-efficacy construct central to this study, positing that observation of role models and mastery experiences build confidence in one's entrepreneurial capability. Finally, North's (1990) institutional perspective and Schumpeter's (1934) innovation theory jointly suggest that macro-level institutional and educational environments condition the extent to which individual entrepreneurial potential is realized.

Empirical Review

A substantial empirical literature links family and university support to entrepreneurial intention, generally though not universally through the mediating roles of attitude and self-efficacy. Najib and Sirine (2021), studying 297 Tunisian final-year students, found that the family environment particularly parental support for autonomy and the presence of entrepreneurial role models significantly predicted entrepreneurial intention. Similarly, Ishfaq (2022), using SEM and hierarchical regression on 359 final-semester students, reported that both entrepreneurial self-efficacy and family support exerted direct, positive effects on entrepreneurial intention.

At the institutional level, Lopes da Rocha et al. (2021) used SEM on a sample of 420 Brazilian students to show that the university environment positively predicts entrepreneurial characteristics and, in turn, entrepreneurial intention, though the study did not disaggregate by academic stage. Otiu (2021), surveying 1,200 students in Europe and the United States, found that social support from both family and university sources significantly strengthened entrepreneurial self-efficacy and intention. Makai and Dőry (2023), examining 145 students in Western Transdanubia, similarly found that perceived environmental and institutional support significantly shaped entrepreneurial intention, while González et al. (2024), drawing on 419 respondents, confirmed that entrepreneurial self-efficacy mediates the relationship between institutional support and intention.

Fayolle and Liñán's (2014) review of more than 150 international studies identified attitude, self-efficacy, and environmental support including family and university support as the dominant predictors of entrepreneurial intention across contexts, providing a strong theoretical anchor for the present study's model. At the measurement level, Liñán et al. (2011a, 2011b) used samples of 700 and 800 Spanish university students respectively to demonstrate that university education exerts a

direct positive effect on entrepreneurial intention, and that self-efficacy and attitude mediate and amplify this relationship. Liñán and Chen (2009) further validated a cross-culturally applicable instrument for measuring entrepreneurial intention using samples from Spain and China, confirming that supportive family and university environments strengthen the attitude–intention and self-efficacy–intention pathways an instrument this study adapts for the Afghan context.

Beyond the family- and university-support literature, a wider body of empirical work has examined individual-difference and contextual predictors of entrepreneurial intention that help contextualize the present findings. Farrukh et al. (2018) found that personality traits including risk propensity and locus of control significantly predict entrepreneurial intention within a TPB framework, while Karabulut (2016) similarly linked personality traits to intention among Turkish students. Gupta and Bhawe (2007) showed that proactive personality strengthens entrepreneurial intention, and Caputo et al. (2024) more recently demonstrated that risk-taking propensity and entrepreneurial knowledge jointly shape intention formation, reinforcing the centrality of psychological readiness alongside environmental support.

Cross-national and comparative evidence further situates the present study. Autio (2001) compared entrepreneurial intent among students in Europe and the United States and found substantial variation attributable to differing institutional and cultural environments. Magableh and Kannan (2023) compared entrepreneurial trait recognition among students in Australia and Japan, again highlighting the role of cultural context in shaping intention formation. Staniewski and Ślomski (2015) reported that Polish students' readiness to start a business was shaped jointly by personal attitudes and perceived environmental conditions, while Fragoso et al. (2019) identified psychological, sociological, and environmental determinants of entrepreneurial intention among Portuguese and Brazilian students. Pauceanu et al. (2018), studying students in the United Arab Emirates, found that self-confidence and perceived university support were significant predictors of the decision to start a business, and Amofah and Kofi Akwaa-Sekyi (2020) reported comparable findings among MBA students in Ghana and Sweden.

At the macro level, evidence on entrepreneurship's economic contribution reinforces the practical rationale for this study. Bygrave (2003) documented a persistent cross-national relationship between unemployment and entrepreneurial activity across 37 countries participating in the Global Entrepreneurship Monitor, while more recent U.S. Small Business Administration data (SBA, 2024) and Fitri et al.'s (2024) systematic review confirm that small and medium-sized enterprises remain central to employment generation in both developed and developing economies. Sharma et al. (2019) specifically examined the role of family climate in shaping entrepreneurial characteristics, offering additional support for the family-support constructs modeled in this study, and Salam Watandar Radio Station (2024)

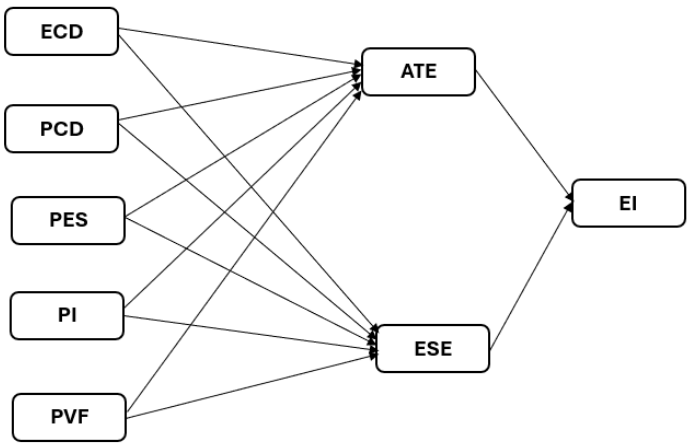
documented, in the Afghan domestic context specifically, that limited formal employment opportunities are a leading concern voiced by Afghan youth directly motivating the present study's focus on entrepreneurship as an alternative career pathway.

Collectively, this body of research supports the plausibility of indirect pathways from university and family support to entrepreneurial intention via attitude and self-efficacy. However, most of this evidence originates from Europe, Latin America, and East Asia; comparatively little is known about whether these relationships hold in fragile, low-institutional-capacity settings such as Afghanistan, where universities offer limited practical entrepreneurship training and where family decision-making authority over young adults' career choices tends to be considerably stronger (Shirokova et al., 2016). This study addresses that gap directly.

Conceptual Framework

Building on the Theory of Planned Behavior (Ajzen, 1991), Social Learning Theory (Bandura, 1997), and the empirical literature reviewed above, the conceptual model proposes that three dimensions of university support (ECD: support for entrepreneurial-characteristic development; PCD: support for entrepreneurial-concept development; PES: entrepreneurship educational support) and two dimensions of family support (PI: promotion of independence/autonomy; PVF: promotion of volitional functioning) influence entrepreneurial intention (EI) indirectly through attitude toward entrepreneurship (ATE) and entrepreneurial self-efficacy (ESE), as illustrated in Figure 1.

Figure 1. Conceptual framework linking university and family support to entrepreneurial intention through attitude toward entrepreneurship and entrepreneurial self-efficacy.



RESEARCH METHODS

Research Design

This study is applied in purpose, since its findings are intended to inform practical decision-making by universities, families, and policymakers seeking to strengthen entrepreneurial motivation among students (Babbie, 2021; Creswell & Creswell, 2018). In terms of data-collection method, it is a cross-sectional survey study: a structured questionnaire was administered to the target population at a single point in time. In terms of data approach, the study adopts a quantitative design, and in terms of the type of analysis, it is inferential, seeking to test hypothesized relationships among independent, mediating, and dependent variables rather than merely describing sample characteristics (Ayer et al., 2019).

Population and Sample

The target population comprised economics students enrolled in the sixth and eighth semesters (final two years) at ten universities across Afghanistan: Samangan, Bamyan, Jawzjan, Faryab, Kunduz, Takhar, Al-Biruni, Badakhshan, Kabul, and Balkh Universities. Final-year students were selected because they possess sufficient exposure to the university environment and are closer to imminent career decisions, making them well positioned to report on both institutional support and their own entrepreneurial intentions (Ayer et al., 2019). Using a convenience sampling approach appropriate for a dispersed, hard-to-enumerate population (Etikan et al., 2016), a total of 192 valid responses were obtained through an online questionnaire.

Measurement Instrument

The questionnaire operationalized eight latent constructs university support for entrepreneurial-characteristic development (ECD), university support for entrepreneurial-concept development (PCD), university educational support for entrepreneurship (PES), family support for autonomy promotion (PI), family support for volitional-functioning promotion (PVF), attitude toward entrepreneurship (ATE), entrepreneurial self-efficacy (ESE), and entrepreneurial intention (EI) using multi-item reflective scales adapted from established instruments in the entrepreneurial-intention literature, principally Liñán and Chen's (2009) Entrepreneurial Intention Questionnaire and related university- and family-support scales (Chen et al., 1998; McGee et al., 2009). All items were measured on multi-point Likert-type scales.

Operational Definitions of Constructs

Table 1. Operational definitions of study constructs

Code	Construct	Operational definition
ECD	University support: characteristic development	Perceived university support for developing entrepreneurial characteristics such as opportunity recognition, leadership, planning, innovation, and risk-taking.
PCD	University support: concept development	Perceived university support for developing conceptual understanding of entrepreneurship as a discipline and career path.
PES	University educational support	Perceived availability of entrepreneurship courses, projects, undergraduate/graduate programs, and conferences/workshops.
PI	Family support: autonomy promotion	Perceived family encouragement of independent thinking, free expression, and autonomous decision-making.
PVF	Family support: volitional functioning	Perceived family respect for personal viewpoints and non-interference in the individual's life choices.
ATE	Attitude toward entrepreneurship	The student's overall favorable or unfavorable evaluation of entrepreneurship as a personal career option.
ESE	Entrepreneurial self-efficacy	The student's belief in their own capability to successfully perform entrepreneurial tasks.
EI	Entrepreneurial intention	The student's self-reported willingness and commitment to establishing a business in the future.

Table A summarizes how each construct was operationalized for the survey instrument, consistent with the wording and intent of the original scale items adapted from Liñán and Chen (2009), Chen et al. (1998), and McGee et al. (2009).

Procedure and Ethical Considerations

The questionnaire was distributed electronically to sixth- and eighth-semester economics students across the ten participating universities. Participation was voluntary, and respondents were informed of the academic purpose of the study prior to completing the survey. No personally identifying information was collected, and responses were aggregated prior to analysis. Data collection and coding were carried out over a defined academic term, consistent with the cross-sectional design described in Section 3.1.

Data Analysis

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4, a variance-based approach well suited to complex models

with multiple mediators and a moderate sample size (Hair et al., 2019). The analysis proceeded in two stages. First, the measurement model was assessed for indicator reliability (factor loadings), internal consistency reliability (Cronbach's alpha, composite reliability), convergent validity (average variance extracted, AVE), and discriminant validity (heterotrait–monotrait ratio, HTMT). Second, the structural model was assessed through path coefficients, bootstrapped significance tests (5,000 resamples), specific indirect effects for hypothesis testing, the coefficient of determination (R^2), effect sizes (f^2), and variance inflation factors (VIF) to rule out multicollinearity.

RESULTS AND DISCUSSION

Sample Characteristics

A total of 192 students completed the survey. Table 1 summarizes the demographic profile of the sample.

Table 1. Demographic and academic characteristics of respondents

Characteristic	Category	Frequency	Percent
Age	18–20 years	16	8.3
	21–25 years	162	84.4
	26–30 years	11	5.7
	31–35 years	3	1.6
Academic year	Third year (6th	45	23.4
	Fourth year (8th	147	76.6
Department	Business	92	47.9
	Finance & Banking	83	43.2
	National Economics	17	8.9
University	Samangan University	42	21.9
	Kabul University	30	15.6
	Jawzjan University	21	10.9
	Badakhshan University	18	9.4
	Bamyan University	16	8.3
	Faryab University	16	8.3
	Takhar University	15	7.8
	Kunduz University	12	6.3
	Al-Biruni University	12	6.3
	Balkh University	10	5.2

As shown in Table 1, the sample was dominated by students aged 21–25 (84.4%) and by fourth-year (eighth-semester) students (76.6%), consistent with the study's focus on final-year cohorts closest to career decisions. Respondents were drawn from Business Administration and Finance-related departments (91.1% combined), with the remainder from National Economics. Participation was broadly

distributed across all ten sampled universities, with Samangan University contributing the largest share (21.9%) and Balkh University the smallest (5.2%).

Entrepreneurial Intention Levels

Table 2. Distribution of entrepreneurial intention among respondents

Level	Frequency	Percent	Cumulative
Below average	3	1.6	1.6
Average	9	4.7	6.3
Above average	180	93.6	100.0

Table 2 shows that an overwhelming majority of respondents 93.6% reported an above-average level of entrepreneurial intention, while only 1.6% reported below-average intention. This finding indicates that Afghan economics students express strong personal willingness to pursue entrepreneurship, even before accounting for the institutional and familial factors examined below. This pattern is consistent with prior evidence that intention levels in constrained labor markets can be driven as much by necessity as by supportive environments (Deli, 2011; Nguyen et al., 2018), a point revisited in Section 4.6.

Measurement Model Assessment

Table 3 reports the reliability and convergent-validity statistics for all eight constructs. All items with loadings below 0.40 were removed; items between 0.40 and 0.60 were retained only where their removal would have reduced composite reliability or AVE below acceptable thresholds. Two entrepreneurial-intention items (EI1 = 0.67; EI6 = 0.58) were retained on this basis, since the construct's AVE nonetheless exceeded 0.50.

Table 3. Reliability and convergent validity of the measurement model

Construct	Cronbach's α	Composite Reliability	Composite Reliability	AVE
ATE – Attitude toward Entrepreneurship	0.703	0.719	0.836	0.632
ECD – University Support: Characteristic Development	0.886	0.902	0.912	0.636
EI – Entrepreneurial Intention	0.732	0.819	0.815	0.530
ESE – Entrepreneurial Self-Efficacy	0.872	0.901	0.902	0.605
PCD – University Support: Concept Development	0.895	0.952	0.927	0.812

PES – University Educational Support	0.956	0.987	0.965	0.820
PI – Family Support: Autonomy Promotion	0.752	0.772	0.859	0.672
PVF – Family Support: Volitional Functioning	0.777	0.830	0.870	0.693

All constructs exceeded the recommended thresholds of 0.70 for Cronbach's alpha and composite reliability, and all AVE values exceeded 0.50, confirming satisfactory internal consistency and convergent validity (Hair et al., 2019).

Table 4. Discriminant validity (Heterotrait–Monotrait ratio, HTMT)

	ATE	**ECD**	**EI**	**ESE**	**PCD**	**PES**	**PI**	**PVF**
ATE								
ECD	0.565							
EI	0.582	0.773						
ESE	0.499	0.445	0.413					
PCD	0.248	0.802	0.497	0.411				
PES	0.119	0.450	0.522	0.255	0.368			
PI	0.325	0.617	0.379	0.465	0.566	0.253		
PVF	0.314	0.425	0.327	0.291	0.530	0.271		

All HTMT ratios fell below the conservative threshold of 0.85 (Hair et al., 2019), confirming adequate discriminant validity across the eight constructs.

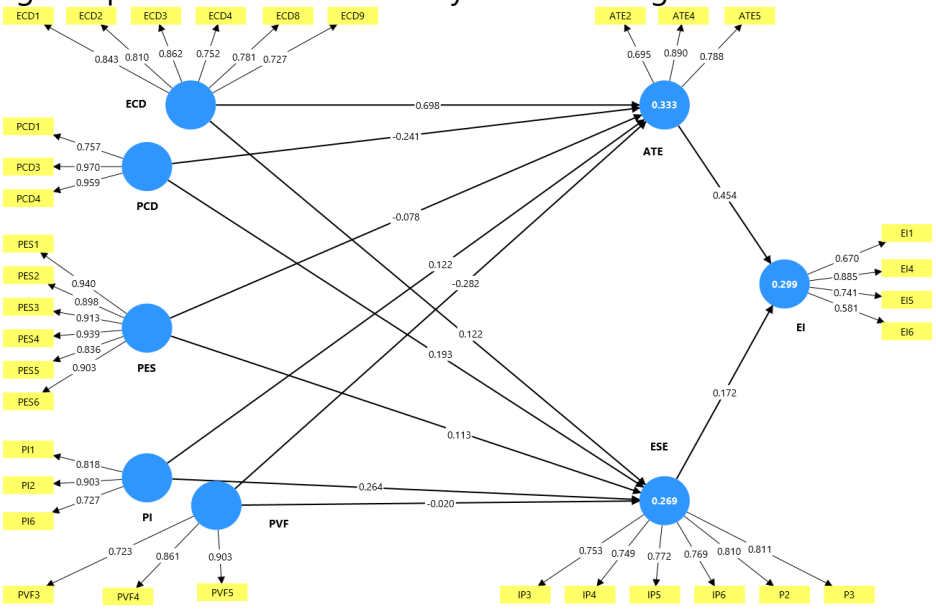


Figure 2. Estimated measurement and structural model with standardized factor loadings, path coefficients, and R^2 values (SmartPLS 4 output).

Structural Model: Direct Effects

Table 5. Path coefficients of direct effects

Path	β (O)	Mean (M)	SD	t	p
ATE → EI	0.454	0.458	0.062	7.377	0.000
ECD → ATE	0.698	0.703	0.087	8.057	0.000
ECD → ESE	0.122	0.133	0.142	0.862	0.388
ESE → EI	0.172	0.180	0.062	2.776	0.006
PCD → ATE	−0.241	−0.244	0.093	2.585	0.010
PCD → ESE	0.193	0.186	0.110	1.750	0.080
PES → ATE	−0.078	−0.078	0.063	1.242	0.214
PES → ESE	0.113	0.112	0.072	1.578	0.115
PI → ATE	0.122	0.120	0.074	1.652	0.099
PI → ESE	0.264	0.264	0.085	3.098	0.002
PVF → ATE	−0.282	−0.286	0.064	4.405	0.000
PVF → ESE	−0.020	−0.020	0.088	0.232	0.817

Both mediators exerted positive, statistically significant direct effects on entrepreneurial intention: attitude toward entrepreneurship ($\beta = 0.454$, $p < .001$) and entrepreneurial self-efficacy ($\beta = 0.172$, $p < .01$). Among the antecedents, ECD showed the strongest effect on ATE ($\beta = 0.698$, $p < .001$), while PCD ($\beta = -0.241$, $p < .05$) and PVF ($\beta = -0.282$, $p < .001$) exerted significant negative effects on ATE. On the ESE side, only PI reached significance ($\beta = 0.264$, $p < .01$); ECD, PCD, PES, and PVF did not significantly predict ESE.

Hypothesis Testing: Specific Indirect Effects

Table 6. Specific indirect effects and hypothesis testing results

Hyp.	Path	β	SD	t	p	Decision
H1	ECD → ATE → EI	0.317	0.064	4.935	0.000	Supported
H2	PCD → ATE → EI	−0.110	0.046	2.358	0.018	Not supported
H3	PES → ATE → EI	−0.035	0.029	1.199	0.231	Not supported
H4	ECD → ESE → EI	0.021	0.031	0.671	0.502	Not supported
H5	PCD → ESE → EI	0.033	0.021	1.565	0.118	Not supported
H6	PES → ESE → EI	0.019	0.013	1.455	0.146	Not supported
H7	PI → ATE → EI	0.055	0.034	1.606	0.108	Not supported
H8	PVF → ATE → EI	−0.128	0.032	4.012	0.000	Not supported
H9	PI → ESE → EI	0.045	0.021	2.120	0.034	Supported
H10	PVF → ESE → EI	−0.004	0.017	0.205	0.837	Not supported

Of the ten hypothesized indirect pathways, only H1 and H9 were empirically supported. University support for entrepreneurial-characteristic development increased entrepreneurial intention through attitude toward entrepreneurship (H1: $\beta = 0.317$, $p < .001$), and family support for autonomy promotion increased

entrepreneurial intention through entrepreneurial self-efficacy (H9: $\beta = 0.045$, $p < .05$). Two pathways were statistically significant but in the direction opposite to that hypothesized: university support for concept development reduced entrepreneurial intention through attitude (H2: $\beta = -0.110$, $p < .05$), and family support for volitional functioning reduced entrepreneurial intention through attitude (H8: $\beta = -0.128$, $p < .001$). The remaining six pathways (H3, H4, H5, H6, H7, H10) were not statistically significant.

Model Quality and Predictive Power

Table 7. Coefficient of determination (R^2)

Endogenous construct	R^2	SD	t	p
ATE – Attitude toward Entrepreneurship	0.333	0.057	5.846	0.000
ESE – Entrepreneurial Self-Efficacy	0.269	0.058	4.623	0.000
EI – Entrepreneurial Intention	0.299	0.048	6.293	0.000

The model explained 33.3% of the variance in attitude toward entrepreneurship, 26.9% of the variance in entrepreneurial self-efficacy, and 29.9% of the variance in entrepreneurial intention levels generally regarded as moderate and acceptable in social-science research (Hair et al., 2019). All variance inflation factors (VIF) for structural paths ranged from 1.06 to 3.25, well below the conservative threshold of 5.0, indicating no multicollinearity concern among predictors. Among direct effects on entrepreneurial intention, attitude toward entrepreneurship exhibited a medium-to-large effect size ($f^2 = 0.245$) while entrepreneurial self-efficacy exhibited a small effect size ($f^2 = 0.035$); the strongest antecedent effect size overall was ECD on ATE ($f^2 = 0.306$).

Discussion

The pattern of supported and rejected hypotheses points to a distinctive profile of entrepreneurial-intention formation among Afghan economics students one shaped less by formal institutional pathways than by a small number of targeted family and university influences operating alongside strong underlying willingness to pursue entrepreneurship.

University support for entrepreneurial-characteristic development (H1, H4)

Consistent with Fayolle and Gailly (2015), Lopes da Rocha et al. (2021), Greeni et al. (2022), and Makai and Dőry (2023), university support aimed at developing entrepreneurial characteristics opportunity recognition, perseverance, leadership,

planning, innovation, analytical ability, risk tolerance, and communication significantly strengthened students' attitudes toward entrepreneurship and, through that attitude, their entrepreneurial intention (H1 supported). Given Afghanistan's constrained labor market, universities that cultivate these characteristics appear able to shift students' cognitive orientation toward entrepreneurship as a viable career path. However, the same support did not significantly strengthen entrepreneurial self-efficacy (H4 not supported), suggesting that Afghan universities may be developing these characteristics primarily at a theoretical rather than an applied, skills-based level sufficient to shape attitudes but insufficient to build the practical confidence captured by self-efficacy.

University support for concept development and educational support (H2, H3, H5, H6)

Contrary to the hypothesized positive relationships, university support for entrepreneurial-concept development exerted a significant negative indirect effect on entrepreneurial intention through attitude (H2 rejected; consistent with the cautionary evidence in Liñán, 2008), and educational support showed a negative but non-significant effect through attitude (H3 rejected). Neither pathway through self-efficacy was significant (H5, H6 rejected). Taken together, these results suggest that entrepreneurship education in Afghan universities courses, projects, incubators, and workshops remains largely theoretical, is rarely accompanied by practical implementation opportunities such as business incubation or applied ventures, and, in some cases, may be perceived by students as disconnected from the realities of starting a business, thereby weakening rather than strengthening favorable attitudes.

Family support for autonomy promotion (H7, H9)

Family support for autonomy encouraging free expression, independent thinking, and personal decision-making showed a positive but non-significant effect through attitude (H7 rejected, broadly consistent with Najib & Sirine, 2021, and Ishfaq, 2022) but a positive and significant effect through entrepreneurial self-efficacy (H9 supported). This suggests that autonomy-supportive parenting builds students' confidence in their own decision-making and communication abilities, which in turn strengthens their belief in their capacity to succeed as entrepreneurs, even where it does not directly reshape their attitude toward entrepreneurship as a career.

Family support for volitional functioning (H8, H10)

The most striking finding is the significant negative indirect effect of family support for volitional functioning on entrepreneurial intention through attitude (H8 rejected in the hypothesized direction; effect is negative and significant). This

construct captures respect for personal viewpoints, non-interference in personal affairs, and the freedom to choose one's own life path. In the Afghan cultural context, where major life decisions education, career, employment, and marriage are frequently made or heavily influenced by family members rather than the individual (Shirokova et al., 2016), high family involvement of this kind may paradoxically reduce, rather than reinforce, occupational independence and favorable attitudes toward entrepreneurship. The corresponding pathway through self-efficacy was negative but non-significant (H10 rejected), indicating that this cultural dynamic operates primarily through attitude rather than through students' belief in their own capability.

The intention–support paradox

A notable tension emerges between the very high overall level of entrepreneurial intention observed in the sample (93.6% above average; Table 2) and the generally weak or negative university-support pathways documented in Sections 4.4–4.5. This pattern implies that Afghan students' willingness to consider entrepreneurship is driven substantially by structural necessity the scarcity of formal employment opportunities (Deli, 2011; World Bank, 2022) rather than by the strength of institutional encouragement. If this interpretation is correct, a large share of expressed intention may fail to translate into actual entrepreneurial behavior unless it is met with more practical, skills-based university support and more autonomy-supportive family environments, consistent with the intention–behavior gap documented by Shirokova et al. (2016).

Synthesis with Prior Literature

Table 8. Summary of hypothesis outcomes in relation to prior studies

Hyp.	Pathway	Outcome	Consistent prior evidence
H1	ECD → ATE → EI	Supported (positive)	Fayolle & Gailly (2015); Lopes da Rocha et al. (2021); Makai & Dőry (2023)
H2	PCD → ATE → EI	Significant, opposite direction	Liñán (2008) cautionary evidence on concept-level education
H3	PES → ATE → EI	Not supported	Contrasts with Liñán et al. (2011a)
H4	ECD → ESE → EI	Not supported	Contrasts with Chen et al. (1998)
H5	PCD → ESE → EI	Not supported	Mixed evidence in prior literature
H6	PES → ESE → EI	Not supported	Contrasts with McGee et al. (2009)
H7	PI → ATE → EI	Not supported	Partially consistent with Najib & Sirine (2021)
H8	PVF → ATE → EI	Significant, opposite direction	Consistent with cultural-context arguments in Shirokova et al. (2016)

Hyp.	Pathway	Outcome	Consistent prior evidence
H9	PI → ESE → EI	Supported (positive)	Consistent with Ishfaq (2022); Sharma et al. (2019)
H10	PVF → ESE → EI	Not supported	

Table 8 situates the study's ten hypothesis tests against the broader empirical literature reviewed in Section 2.4. The pattern of results indicates that Afghanistan largely reproduces the internationally documented positive role of practically oriented university support for entrepreneurial characteristics (H1) and autonomy-supportive family environments (H9), while diverging from the international literature on the effects of concept-level university education (H2) and highly involved family decision-making (H8) divergences that plausibly reflect Afghanistan's distinctive institutional and cultural environment rather than a failure of the underlying theoretical model.

CONCLUSION

This study examined the factors influencing entrepreneurial intention among 192 final-year economics students at ten Afghan universities, using PLS-SEM to test the mediating roles of attitude toward entrepreneurship and entrepreneurial self-efficacy in the relationships between university and family support and entrepreneurial intention. The results confirm that attitude and self-efficacy both directly and positively predict entrepreneurial intention, in line with the Theory of Planned Behavior and Social Learning Theory. However, only two of ten hypothesized indirect pathways were supported: university support for entrepreneurial-characteristic development operating through attitude, and family support for autonomy promotion operating through self-efficacy. University support for concept development and family support for volitional functioning both exerted significant negative indirect effects through attitude, while university educational support showed no significant indirect effect through either mediator.

These findings suggest that, in the Afghan context, formal university entrepreneurship education remains too theoretical to meaningfully shape students' entrepreneurial attitudes or self-efficacy, and that certain culturally embedded forms of family involvement may inadvertently dampen rather than encourage entrepreneurial attitudes. At the same time, the exceptionally high baseline level of entrepreneurial intention observed in the sample driven, plausibly, by constrained labor-market alternatives indicates substantial latent entrepreneurial potential among Afghan economics students that current institutional and family support structures are only partially converting into favorable attitudes and self-efficacy.

Implications

For universities, the findings suggest that entrepreneurship curricula should move beyond theoretical instruction toward applied, practice-based formats business incubators, mentorship programs, and hands-on venture projects that can build entrepreneurial self-efficacy alongside attitude. The finding that concept-level and purely educational support (PCD, PES) failed to strengthen, and in one case weakened, favorable attitudes suggests that simply adding entrepreneurship content to the curriculum is not sufficient; the mode of delivery, not merely its presence, appears to determine its effectiveness. Universities seeking to convert Afghanistan's high baseline entrepreneurial intention into practical outcomes should therefore prioritize experiential learning over lecture-based instruction.

For families, the results suggest that supporting students' autonomy and independent decision-making, rather than closely directing their career and life choices, is associated with stronger entrepreneurial self-efficacy, while highly directive family involvement in personal decision-making is associated with weaker entrepreneurial attitudes. Family-oriented awareness initiatives delivered through community or religious institutions, for example could help reframe entrepreneurial autonomy as compatible with, rather than opposed to, family involvement.

For policymakers and development organizations, the study underscores that expressed entrepreneurial intention in Afghanistan is high but may not be self-sustaining without complementary access to finance, mentorship, and a more enabling regulatory and economic environment (World Bank, 2022). Given that necessity-driven intention appears to exceed institutionally supported intention, policy interventions such as micro-finance access, business registration simplification, and youth entrepreneurship funds may be needed to prevent the erosion of this latent entrepreneurial potential into further labor out-migration (Salam Watandar Radio Station, 2024).

Limitations

This study is subject to several limitations. Data collection relied on convenience sampling from ten universities, constrained by financial and time resources, which limits the generalizability of the findings to the broader population of Afghan university students and to disciplines outside economics and business. Data were collected exclusively through a self-administered online questionnaire; in a context where social-desirability pressures around family and cultural norms may be pronounced, interview-based or mixed-methods approaches could yield more nuanced insights and help validate self-reported responses. The cross-sectional design captures entrepreneurial intention at a single point in time and cannot establish whether intention subsequently translates into entrepreneurial behavior, nor can it rule out reverse-causal or reciprocal relationships among attitude, self-efficacy, and intention. Finally, while the measurement model met conventional

reliability and validity thresholds, several structural paths particularly those involving PES and PCD had comparatively wide confidence intervals, and the moderate R^2 values (26.9%–33.3%) indicate that unmeasured factors, such as peer influence, financial constraints, and macroeconomic conditions, likely also shape entrepreneurial intention in this context.

Directions for Future Research

Future studies could incorporate additional mediating variables such as creativity, resilience, and social-network strength, and moderating variables such as gender, field of study, household income, and university type (public versus private). Given the gap identified between high expressed intention and weak institutional-support pathways, longitudinal research tracking whether entrepreneurial intention among Afghan students converts into actual venture creation would be particularly valuable. Mixed-methods designs that combine survey data with in-depth interviews may also help clarify the mechanisms underlying the negative family- and university-support pathways identified here, and could be extended to other conflict-affected or fragile-state contexts facing similar structural employment constraints.

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