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Research Article

From Classroom to Startup: Analysing the Link Between University Support and Entrepreneurial Intentions in a Developing Country

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Abstract

Entrepreneurship is widely recognised as a driver of social and economic development, and Higher Education Institutions (HEIs) play a central role in cultivating entrepreneurial intentions (EIs) among students. While universities across the globe employ entrepreneurship support programmes, incubators, and enterprise development centres (EDCs), there is still limited clarity on which forms of support most effectively influence the EIs, particularly in emerging economies. This study addresses this gap by examining how entrepreneurial support at universities, in the Khyber Pakhtunkhwa (KP) region of Pakistan, shape students' entrepreneurial behaviour and intentions. Drawing on a quantitative design, survey data were collected from 386 Master-level students and complemented with further document analysis. Structural Equation Modelling (SEM) revealed three forms of university support as statistically significant predictors of EIs: entrepreneurial networking and support ((β=0.41, $p<0.001$), entrepreneurship clubs (β=0.36, $p<0.01$), and institutional linkages with society (β=0.33, $p<0.01$). Conversely, entrepreneurship education, supportive faculty, and entrepreneurial resources were found to have no significant effect on EIs ($p >0.05$). The findings suggest that universities can more effectively nurture EIs not only through classroom education but by embedding students within wider networks and societal linkages. This highlights the importance of moving from purely curriculum-based interventions to ecosystem-based support. The study contributes to global debates on human-centred entrepreneurship by demonstrating how universities, particularly in developing contexts, can enhance entrepreneurial behaviour through relationship-building, collaboration, and adaptive responses to contextual barriers. These insights are directly relevant to policymakers, educators, and practitioners seeking to strengthen entrepreneurial ecosystems worldwide.

Keywords

Entrepreneurial Intentions, Higher Education Institutions, Entrepreneurial Networking, University Support, Ecosystem, Entrepreneurship Clubs, University Linkages with Society, Entrepreneurial Support, Entrepreneurship Education

1. Introduction

Entrepreneurship is widely recognised as one of the primary drivers of the economic and social development. Scholarly work has consistently highlighted its role in fostering economic growth and generating youth employment across both

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the developed and developing countries [1, 2]. As youth unemployment remains a major challenge; globally, with approximately 64.9 million young people (aged 15-24) out of work [3], advanced economies are tackling the issue by promoting entrepreneurship among youth through education, mentorship, easy access to finances and supportive regulatory frameworks. Universities around the globe are playing important role in this regard by also focusing on fostering the entrepreneurial orientation of their students, along with their core functions of teaching and research [4]. Pakistan, a developing country, has also experienced the problem of high youth unemployment, in the recent past with almost two-third of its population under the age of 30 years [5]. Though the universities in the country have increasingly focused entrepreneurship over the past two decades, by establishing EDCs, start-up support programmes, business incubators and other such support initiatives [6], the effectiveness of this university support remains uncertain. Majority of the graduates continue to seek traditional employment, entering a job market which is already constrained by very limited opportunities. As a result the disjunction between the university entrepreneurial initiatives/support and the employment outcomes persists, thus raising concerns about the adequacy of the institutional efforts, aimed at fostering entrepreneurship [7]. Consequently, the growing number of graduates, unbale to secure meaningful work or engage in an entrepreneurial activity, continues to contribute to the rising rate of unemployment among youth each year.

Despite the strong potential for economic development in the Khyber Pakhtunkhwa (KP) region, entrepreneurial activity in the region remains limited. Many enterprises underperform due to lack of skilled human capital and inadequate technical capacity [8]. This challenge is further compounded by universities' limited success in equipping graduates with the entrepreneurial mindset and practical skills needed to create their own ventures [9]. As a result, a large number of unskilled graduates continue to enter an already saturated job market, thus reflecting the weak entrepreneurial culture within the province. This explains why it is important to examine the university's entrepreneurial support factors which influence EIs within the KP context, as institutional dynamics play a crucial role in shaping graduates capacity and motivation to pursue entrepreneurship.

To date, limited research has explored how these support initiatives have influenced EIs of the students at the national level. Moreover, there is also a notable lack of studies that assess the extent to which such support factors have impacted EIs, particularly in the KP region. This gap in the existing literature has motivated the present study, which focuses on the Masters level students from selected universities in the KP region, aiming to provide deeper insights into the relationship between university support and EIs.

Research Objectives and Questions

The study aims to critically investigate the university entrepreneurial support initiatives and how these shape the EIs of the students. It further aims to construct an explanatory model capturing the overall impact of these support initiatives on EIs of the students. In line with these objectives, the research addresses the following questions:

1) To what extent, do university's support initiatives influence the EIs?
2) How effective is the proposed model in predicting and explaining this relationship?

2. Literature Review

2.1. Entrepreneurial Intention Models

Entrepreneurial intentions (EIs) are considered the most reliable indicator of entrepreneurial activity, as they reflect individuals' deliberate and planned decisions to start a business. To understand what drives these intentions, researchers commonly rely on intention-based models, particularly Shapero's Entrepreneurial Event Model (EEM) and Ajzen's Theory of Planned Behaviour (TPB).

Shapero's EEM suggests that EIs depend on three factors: how desirable individuals perceive entrepreneurship to be, how feasible they believe it is, and their propensity to take action. These intentions are often triggered by significant life events. In contrast, Ajzen's TPB argues that intentions are shaped by three elements: attitudes toward the behaviour, subjective norms (social pressures and expectations), and perceived behavioural control (belief in one's ability to perform the behaviour) [10]. Despite their widespread use and explanatory power, both models face a notable limitation. Critics argue that neither adequately accounts for the role of environmental/contextual factors in shaping EIs.

To overcome this shortcoming, Luthje and Franke introduced the Luthje-Franke Model (LFM), which integrates both environmental elements—such as perceived barriers and institutional support—and individual personality traits, including risk-taking propensity and locus of control [11]. Research has demonstrated the LFM's effectiveness in identifying factors that influence entrepreneurial intentions [12, 13]. Unlike EEM and TPB, the LFM offers a more comprehensive framework by accounting for both the internal characteristics of individuals and the external contextual factors within the university environment, for impacting the EIs.

2.2. University Entrepreneurial Support

University entrepreneurial support refers to the institutional elements, practices, and interventions that shape the academic environment, including entrepreneurship education and student engagement, with the aim of fostering an entrepreneurial mindset among students [14]. Core components of the university support typically include academic staff, physical infrastructure, curriculum design, financial resources, research and innovation activities, and campus conditions [15]. Ostroff, Kinicki and Tamkins conceptualize the university support as

comprising the meanings individuals ascribe to institutional policies, practices, and procedures, alongside their shared perceptions and the behavioural expectations that emerge from these collective understandings [16]. Within university settings, empirical research demonstrates that the environment in which students engage on a daily basis influences not only their entrepreneurial intentions but also the antecedents of these intentions [17, 18]. Consequently, the university support environment assumes a critical role in fostering students' entrepreneurial intentions by cultivating a supportive entrepreneurial ecosystem [19, 20].

Universities play a pivotal role in fostering students' EIs by providing course materials, practical exposure, and structured learning opportunities. Yurtkoru, Kuscu and Doganay revealed that an entrepreneurship-supportive academic environment positively influences students' EIs, thereby encouraging engagement in entrepreneurial activities [21]. However, the composition and quality of support provided by universities vary considerably across institutions [22]. Given this variability, analysing the university's entrepreneurial support factors is essential for understanding and examining the diverse forms of support that may exert either positive or negative effects on EIs and subsequent entrepreneurial activity [23]. A comprehensive review of the literature revealed that for fostering entrepreneurial spirit among students, universities provide entrepreneurial support in the form of entrepreneurship education, entrepreneurship support programmes, entrepreneurial networking, supportive faculty, entrepreneurship clubs, entrepreneurial resources, and linkages with society. These factors are discussed as follows:

Entrepreneurship Education (EE) stands out as one of the most researched entrepreneurial support factor, equipping students with the essential knowledge, attitudes, and skills needed for venture creation [24]. Maseda, Iturralde, Copper and Aparicio argue that EE has emerged as a vital mechanism for preparing the contemporary workforce, cultivating skills that enable individuals to adapt across disciplines while fostering innovation and entrepreneurial thinking [25]. Evidence from Pakistani universities indicates that students find educational and concept-development support particularly effective in strengthening their EIs [26].

Beyond traditional coursework, universities offer Entrepreneurship Support Programs (ESPs) including workshops, mentoring sessions, guest lectures, and business plan competitions. While these programs aim to provide hands-on experience, research yields mixed results—some studies find no significant difference in EIs between program participants and non-participants [27].

Entrepreneurial Networking (EN) serves as another vital internal factor, connecting students with alumni, entrepreneurs, and industry professionals. Research confirms that networking significantly influences start-up activity and positively impacts students' EIs [28]. Supportive Faculty (SF) is equally important, as knowledgeable and motivated instructors can inspire entrepreneurship and encourage students to participate in competitions and projects. However, a contextual limitation exists: not all faculty members possess direct entrepreneurial experience, which can diminish their influence [29]. Entrepreneurship Clubs (ECs) provide peer-driven, experiential learning environments that emphasize collaboration and initiative [30]. However, these clubs often face challenges related to insufficient funding and institutional support, which can limit their effectiveness.

Entrepreneurial Resources (ER)—such as incubators, seed funding, and start-up facilities—have proven essential in stimulating students' EIs [31]. Finally, the university's linkages with broader society (LWS) also matter considerably. Universities operate within larger social and economic systems, and their relationships with external stakeholders critically shape students' EIs [32]. When human capital combines with well-connected ecosystem stakeholders, it creates a robust support system for innovation and entrepreneurship. University-society collaboration builds social capital, enhances students' capacity to identify and exploit entrepreneurial opportunities, and positively influences their EIs [33]. After identifying the university support factors, the next step is to develop hypotheses and the conceptual framework for the research.

2.3. Hypothesis Development and Conceptual Framework

The literature review identified the key support factors which are employed by universities to foster entrepreneurship among students and included EE, ESP, EN, SF, EC, ER and LWS. These can help in the hypotheses development.

The literature broadly indicates a positive and significant relationship between university-based EE and students' EIs [34-36]. Thus, underscoring the pivotal role of universities as primary providers of EE in cultivating an entrepreneurial mindset among students. However, certain studies have introduced considerable debate by presenting conflicting findings, with studies reporting no significant effect of entrepreneurship course participation on start-up inclinations [37, 38]. These divergent findings in the literature necessitate further empirical investigation to examine the influence of EE on entrepreneurial career choice. Consequently, this study tests the following hypothesis within the Pakistani context:

H1a: EE has a significant relationship with EIs.

Numerous empirical studies investigating the impact of entrepreneurship support programmes (ESPs) on EIs have demonstrated that specific ESPs effectively encourage entrepreneurs to establish ventures or enhance their business performance [39, 40]. However, other studies reported inconsistent evidence regarding the relationship between ESP and EIs, such as Oosterbeek, Van Praag and Ljsselstein identified a negative association between ESPs and EIs, while Von Graevenitz, Harhoff and Weber reported mixed results, noting enhanced entrepreneurial learning and inspiration among ESP participants but no significant difference in entrepreneurial in-

tentions compared to non-participants [41, 42]. These contradictory findings highlight the need for further investigation of the ESP–EIs relationship across different contexts. Accordingly, this study examines this relationship in the Pakistani context and proposes the following hypothesis:

H1b: ESP has a significant relationship with EIs.

Based on various empirical studies, entrepreneurship networking (EN) positively impacts students' EIs. Research in 26 different countries having a large multi-country survey confirmed this significant relationship [42]. However, these findings require validation within the specific context of Pakistan, leading to the formulation of the following hypothesis.

H1c: EN has a significant relationship with EIs.

Lecturers are widely recognised as important contributors to the development of students' entrepreneurial interest and thinking. Several empirical studies report that strong inspiration from faculty significantly influences EIs [43], while other research finds no significant effect of faculty-related factors on students' EIs [44]. These mixed findings suggest that the role of supportive faculty (SF) may vary across contexts. Therefore, this study tests the relationship between supportive faculty and EIs in the Pakistani context through Hypothesis H1d.

H1d: SF has a significant relationship with EIs.

Entrepreneurship clubs (ECs) at universities are recognised as important platforms that support students in developing and launching new ventures. Prior empirical studies generally report a significant relationship between ECs and students' entrepreneurial activities [45]. However, despite their growing relevance, the literature assessing the effectiveness and impact of ECs remains limited and context-dependent. Accordingly, this study proposes Hypothesis H1e, which examines the relationship between ECs and entrepreneurial intentions in the Pakistani context.

H1e: EC has a significant relationship with EIs.

Entrepreneurship literature identifies a range of university-based resources (ERs) that support student entrepreneurship, including venture financing, incubators, seed funds, start-ups, and market research facilities. Some studies suggest that greater exposure to such entrepreneurial resources enhances EIs and likelihood of starting a business [45, 46]. However, other research reports negative effects of certain resources, particularly university seed funding, on students' start-up activities [47]. These mixed findings highlight the need for further examination of the relationship between ER and EIs, especially in developing contexts such as Pakistan, leading to Hypothesis H1f.

H1f: ERs has a significant relationship with EIs.

Strong linkages between universities and the wider society (LWS), particularly through networking and mentoring, are crucial for enhancing students' EIs. Such linkages include collaboration with industry, government bodies, regional development agencies, and other universities, and are associated with higher levels of entrepreneurial activity within universities. Prior research shows that close university–industry ties promote outcomes such as spin-offs, start-ups, and faculty engagement with industry [48, 49]. Consequently, this study proposes Hypothesis H1g, positing a significant relationship between linkages with the wider society and students' EIs.

H1g: LWS has a significant relationship with EIs.

The conflicting and contradictory findings in prior studies highlight the need for further investigation and provide justification for the hypotheses formulated above.

The conceptual framework outlines the relationships between independent and dependent variables to guide the achievement of the research objectives. Existing literature highlights multiple university support factors influencing students' EIs, yet studies in developing country contexts remain limited and have largely focused on demographic and socio-cultural determinants. Addressing this gap, the present study develops a conceptual framework that captures the potential causal relationships between university entrepreneurial support factors and EIs.

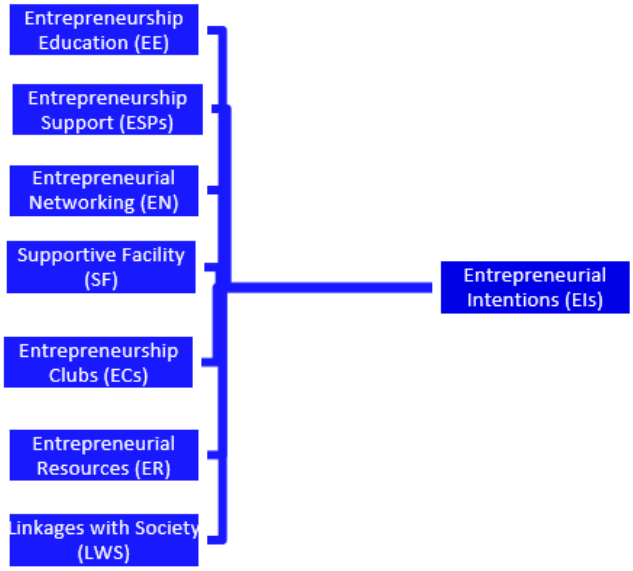

Figure 1. *Conceptual Framework.*

Based on the related literature, the proposed model in Figure 1 postulates seven 'university entrepreneurial support factors' that may have a significant impact on EIs.

3. Research Methodology

3.1. Research Philosophy

This study adopts a positivist research philosophy. Positivism emphasizes objectivity, measurability, and the testing of hypotheses through observable and quantifiable data. It operates on the assumption that reality is external and objective, and that knowledge is best acquired through empirical obser-

vation and measurement. This philosophical stance is appropriate for investigating causal relationships between defined variables, such as university offerings and entrepreneurial intentions, in a structured and generalizable manner.

3.2. Research Approach

The research follows a deductive approach, consistent with the positivist paradigm. This approach begins with established theories from existing literature, from which specific, testable hypotheses are logically derived [50]. A conceptual model is formulated based on theoretical foundations, and hypotheses are stated explicitly to be confirmed or refuted through statistical analysis. This process ensures the research is theory-driven, structured, and aimed at producing generalizable conclusions.

3.3. Research Design and Data Collection

A cross-sectional, survey-based research design is employed. This quantitative design is selected to collect numerical data that can be statistically analysed to test the proposed hypotheses. The primary instrument is a structured, self-administered questionnaire distributed to a target sample of students across multiple universities. The questionnaire utilizes standardized Likert-scale items to operationalize and measure key constructs, such as perceptions of university offerings and levels of entrepreneurial intention, ensuring consistency and quantifiability of responses. Data collection was executed via structured questionnaires to ensure efficiency, standardization, and the acquisition of quantifiable data amenable to statistical generalization.

3.4. Data Analysis

Data analysis is conducted using statistical software (AMOS/SPSS). The analysis proceeds through several structured phases:

1) *Descriptive Statistics:* To summarize the sample characteristics and key variables.
2) *Psychometric Testing:* Confirmatory Factor Analysis (CFA) is used to assess the validity and reliability of the measurement model, ensuring constructs are measured accurately. Discriminant and convergent validity are also examined.
3) *Hypothesis Testing:* Inferential statistical techniques, such as correlation and regression analysis, are employed to test the hypothesized relationships between the independent and dependent variables as outlined in the conceptual model. The significance, strength, and direction of these relationships are statistically determined.

3.5. Sampling Technique

A structured questionnaire was administered to Master's students in business and management sciences across 22 universities in KP, Pakistan—a representative developing-region context. Using cluster and proportional random sampling, 490 students were contacted, yielding 405 responses. After removing 19 incomplete submissions, 386 valid responses were retained. Demographic data characterized the sample (Table 1). All respondents were eligible to pursue entrepreneurship post-graduation and had not previously started a business.

Table 1. *Demographic Profile of the Sample Data.*

Variable	Category	Frequency	Percentage (%)
Gender	Male	304	78.8
	Female	82	21.2
University Type	Public	229	59.5
	Private	157	40.5
Age	21-25 years	324	83.9
	26-30 years	58	15.0
	31+ years	4	1.0
Study Mode	Full-Time	369	95.6
	Part-Time	17	4.4

Table 1 presents the demographic profile of the sample. The respondents are predominantly male (78.8%), which aligns with general enrolment patterns in business-related disciplines. Students from public universities constitute a slight majority (59.5%), compared to those from private institutions (40.5%). A majority of participants (83.9%) fall within the 21–25 age range, corresponding to the typical age cohort in higher education. Nearly all respondents (95.6%) are enrolled as full-time students, indicating that academic engagement is their primary focus.

4. Results

All constructs demonstrated acceptable internal reliability, with Cronbach's α exceeding 0.70 in both pilot and main study samples. The dataset was initially screened for missing values and assessed for normality. Following established analytical procedures [51], SPSS 24 was used for descriptive statistics and exploratory factor analysis (EFA), while AMOS 24 was employed for confirmatory factor analysis (CFA) and structural equation modelling (SEM).

4.1. Exploratory Factor Analysis

EFA using Principal Component Analysis (PCA) yielded a

6-factor solution, aligning with the study's predefined constructs. The primary factor, labelled Entrepreneurial Networking and Support (ENS), accounted for 26.9% of the variance, highlighting the significant role of networking-related items. Cumulatively, all factors explained 68.2% of the total variance. All retained items exhibited high factor loadings ($\lambda > 0.60$) on their designated factors with minimal cross-loadings. Internal consistency for each construct was strong, with Cronbach's α coefficients ranging from 0.82 to 0.91. The factors were identified as: Entrepreneurial Networking and Support (ENS), Entrepreneurship Education (EE), Entrepreneurship Clubs (EC), Supportive Faculty (SF), Entrepreneurial Resources (ER) and Linkages with Society (LWS). The resultant factor structure validated the conceptual distinctions among the measured constructs. The Extracted factors are given in Table 2.

Table 2. *Extracted factors and Total Variance.*

Factor	Eigen Value	% Variance Explained	Cumulative (%) Variance
Factor 1	13.47	26.94	26.94
Factor 2	3.58	7.16	44.01
Factor 3	2.02	4.03	60.21
Factor 4	1.07	2.13	69.55
Factor 5	0.81	1.62	72.97
Factor 6	0.73	1.46	74.42

Table 2 shows that the factor analysis produced a six-factor solution, collectively accounting for 74.42% of the total variance, which exceeds the commonly accepted threshold of 60%. Factor 1 alone explains 26.94% of the variance, indicating the presence of a dominant underlying construct strongly associated with entrepreneurial intentions. Subsequent factors contribute incrementally smaller, yet still meaningful, proportions of variance. The retention of four factors with eigenvalues exceeding 1.0 further supports the robustness of the derived factor structure.

4.2. Confirmatory Factor Analysis

The CFA results demonstrated a robust fit for the 6-factor measurement model ($\chi^2/df \approx 2.0$, CFI ≈ 0.95, RMSEA ≈ 0.04). All standardized factor loadings were statistically significant ($p < 0.001$). Convergent validity was established, as the Average Variance Extracted (AVE) for each construct exceeded 0.50. Discriminant validity was also supported, with squared inter-construct correlations remaining below the respective AVE values. These fit indices and validity metrics align with the recommended standards for model evaluation [51]. Table 3 present the model Goodness-of-fit indices.

Table 3. *Model Goodness-of-Fit Indices.*

Fit Index	Threshold	CFA First Run	CFA Second Run	CFA Third Run
χ^2/df	< 3	2.130	2.014	1.982
GFI	>0.80	0.880	0.885	0.892
AGFI	>0.80	0.825	0.835	0.841
CFI	>0.90	0.906	0.928	0.954
NFI	>0.90	0.894	0.912	0.931
TLI	>0.90	0.893	0.910	0.933
RMR	>0.05	0.060	0.055	0.047
RMSEA	>0.08	0.070	0.062	0.052

The fit indices for the structural equation model (SEM) indicate an excellent alignment with the data: $\chi^2/df = 1.982$ (good), CFI = 0.954, TLI = 0.933, and RMSEA = 0.052. All values meet or exceed recommended benchmarks, confirming that the model provides a robust fit.

4.3. Structural Equation Model

The structural model's results, detailed in Table 3, account for 67.3% of the variance in EIs ($R^2 = 0.673$). Consequently, the hypothesized relationships are evaluated using a well-specified model. Three of the six hypothesized paths were

found to be statistically significant ($p < 0.05$). Consequently, hypotheses H1b, H1d and H1f were supported, while H1a, H1c and H1e were not. The final structural model, including the significant pathways, is presented in Table 4 below.

Table 4. Path-Coefficient Weights for the Structural Model.

Hypothesis	Path	Estimate	Critical Ratio (CR)	p-value	Outcome
H1a	EE → EI	0.043	0.893	0.374	Not Accepted
H1b	ENS → EI	0.232	2.408	<0.05	Accepted
H1c	SF → EI	-0.103	-1.020	0.308	Not Accepted
H1d	EC → EI	0.199	2.962	<0.005	Accepted
H1e	ER → EI	-0.128	-0.753	0.452	Not Accepted
H1f	LWS → EI	0.427	3.008	<0.005	Accepted

The effects of Entrepreneurship Network and Support, Entrepreneurship Clubs and Linkages With Society were found to be significant while the hypothesized influences of Entrepreneurship Education, Supportive Faculty, and Entrepreneurial Resources were not supported by the data.

5. Discussion

The analysis of factors influencing EIs within the Pakistani context reveals a significant differentiation between relational-experiential drivers and formal institutional mechanisms. Three factors demonstrated a statistically significant positive impact, aligning with and contextualizing established international evidence. *Entrepreneurial Networking and Support* (ENS)—encompassing mentorship, coaching, and business-plan competitions—emerged as a powerful determinant, a finding consistent with Entrepreneurial literature on resource access and self-efficacy. In the specific context of Pakistan's relatively weak institutional resource base, this result suggests that relational capital may effectively substitute for formal incubator support, positioning networking as a critical compensatory mechanism. Similarly, *Entrepreneurship Clubs* (ECs) and *Linkages with Society* (LWS) proved highly influential. ECs facilitate vital experiential learning and confidence-building, supporting the pedagogical superiority of active, student-driven programs. LWS, through internships and local market exposure, underscores the embeddedness of entrepreneurship within social and economic ecosystems, allowing community connections to mitigate university-level resource shortfalls.

Conversely, the study rejected hypotheses related to three factors conventionally emphasized in entrepreneurship literature: *Entrepreneurship Education* (EE), *Supportive Faculty* (SF), and *Entrepreneurial Resources* (ER). Each displayed a non-significant effect, a divergence that highlights critical structural and cultural contingencies. The negligible impact of EE is attributed to a predominantly theoretical curriculum and a persistent cultural prestige attached to salaried, particularly governmental, employment, which collectively devalue entrepreneurial pursuits. While faculty were perceived as generally supportive, their pedagogical approach remained traditional and instructional rather than transformative and experiential, limiting their role in shaping EIs. Furthermore, limited access to seed funding, incubators, and venture capital made ER insignificant, a situation made worse by risk-averse family attitudes within the joint family system.

Together, these findings outline a clear pathway for strengthening entrepreneurial intentions in this developing economy. The strong effects of ENS, ECs, and LWS highlight the importance of practical, network-based, and community-focused interventions. In contrast, the non-significant effects of EE, SF, and ER indicate a mismatch between global assumptions and local conditions. This discrepancy underscores the necessity of moving beyond universally applied models and critically re-evaluating policy and pedagogical frameworks through a context-specific lens. For Pakistan and similar settings, the evidence advocates for strategic investments in experiential learning platforms, robust mentorship networks, and university-society partnerships, while concurrently undertaking deeper reforms to revitalize formal entrepreneurship education and institutional support mechanisms to better align with both global insights and local socio-cultural dynamics.

6. Conclusion

Motivated by persistent youth unemployment and recent government-led educational reforms promoting entrepreneurship, this study examined which university entrepreneurial support factors influence students' EIs and the extent to which these relationships can be captured through a proposed model. The findings reveal that in Pakistan, students' EIs are shaped

primarily by relational and experiential factors rather than formal academic or institutional mechanisms. Specifically, networking opportunities, entrepreneurial clubs, and societal linkages emerged as key determinants, highlighting the role of peer support and community engagement in providing the confidence and resources necessary for entrepreneurial pursuits. Conversely, entrepreneurship education, faculty support, and institutional resources exerted a comparatively limited influence, reflecting structural and cultural constraints within the existing higher education system. The results suggest that fostering entrepreneurship in Pakistan cannot rely solely on classroom-based instruction or symbolic institutional support; rather, it requires organisational reform, improved resource allocation, and stronger relations among universities, industry, and policymakers. Overall, the study proposes an integrative framework encompassing six key antecedents of students' EIs, contextualised within Pakistan's socio-economic environment. This framework offers valuable insights into how university support shapes EIs and provides a foundation for policymakers and higher education leaders to design targeted interventions that address both the strengths and limitations identified in this research.

7. Theoretical and Practical Contributions

This study makes several theoretical contributions by proposing an integrated model that synthesises university entrepreneurial support factors influencing EIs, thereby addressing a key gap in the entrepreneurship literature. By situating the analysis within the Pakistani context, the findings help explain inconsistencies in prior international studies and demonstrate the limitations of universal models of EIs. Furthermore, the study extends existing research by incorporating both student's and institutional perspectives, offering a more holistic understanding of EIs.

From a practical perspective, the findings underscore the critical role of the university's entrepreneurial support factors in shaping students' EIs. Perceived support in networking, experiential learning opportunities, and university's linkages with society significantly enhances EIs. The proposed model provides actionable guidance for universities in designing effective entrepreneurship programmes and for policymakers in creating enabling conditions to foster entrepreneurial behaviour among students.

8. Research Limitations and Future Research Directions

Despite its contributions, this study has certain limitations. Although a broad range of factors was examined, some cultural and contextual variables may not have been fully captured. Additionally, resource constraints limited the sample size across 22 universities, which may affect the generalisability of the findings.

Future research could extend the framework by incorporating cultural dimensions and emerging factors such as university–industry–government collaboration and the law-and-order context. Longitudinal studies would help assess changes in EIs over time, while cross-regional or cross-cultural research could test the robustness of the model. Further investigation across non-business disciplines, such as engineering or agriculture, may reveal disciplinary differences. Finally, incorporating moderating variables and conducting intervention-based studies would provide deeper insights into the effectiveness of entrepreneurship support programmes in practice.

Abbreviations

HEIs	Higher Education Institutions
EIs	Entrepreneurial Intentions
EDCs	Entrepreneurship Development Centres
KP	Khyber Pakhtunkhwa
SEM	Structural Equation Modelling
EEM	Entrepreneurial Event Model
TPB	Theory of Planned Behaviour
LFM	Luthje-Franke Model
EE	Entrepreneurship Education
ESP	Entrepreneurship Support Programme
EN	Entrepreneurial Networking
SF	Supportive Faculty
ECs	Entrepreneurship Clubs
ERs	Entrepreneurial Resources
LWS	Linkages With Society
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
PCA	Principal Component Analysis
ENS	Entrepreneurial Networking & Support
AVE	Average Variance Extracted
CR	Critical Ratio

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Author Contributions

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Data Availability Statement

The data is available from the corresponding author upon reasonable request.

Conflicts of Interest

The author declares no conflicts of interest.

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