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The Influence of University Environment on Students Entrepreneurial Propensity

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Abstract

This study examined the impact of University Environment (UE) on Students' Entrepreneurial Propensity (SEP) at public sector universities in Khyber Pakhtunkhwa. This study utilized a quantitative approach to explore the relationship between the university environment and entrepreneurial propensity among students in Khyber Pakhtunkhwa's universities. The research targeted public sector universities, focusing on five institutions known for their strong academic infrastructure and diverse student populations. A stratified random sampling technique ensured representation across five specialized departments. Data collection involved a structured questionnaire developed from existing literature, covering demographic information, perceptions of the university environment, participation in entrepreneurship education, and measures of entrepreneurial propensity. In results, Correlation analysis indicated strong positive associations among UE, ESE, FBI, and SEP. Regression analysis demonstrated that UE significantly influenced SEP, with ESE further enhancing this relationship. UE and ESE accounted for a important portion of the variance in SEP, with ESE acting as a mediator. FBI moderated the relationship between ESE and SEP, suggesting that involvement in family businesses effect of ESE on entrepreneurial intentions. Findings supported for public sector universities to enhance their entrepreneurial support programs, developing an environment that encouraged entrepreneurial activities through resource investment, mentorship, and practical training. Establishing incubators and promoting industry collaborations were recommended to cultivate a healthy entrepreneurial environment, in that way empowering students to pursue their entrepreneurial ambitions.

Keywords:

University Environment, EntrepreneurialSelf-efficacy, Students' Entrepreneurial Propensity

Introduction

The university environment plays a crucial role in shaping students' entrepreneurial mindset through factors like infrastructure, academic programs, faculty support, and extracurricular activities. By emphasizing innovation, universities provide resources and networks that foster an environment conducive to exploring entrepreneurial ambitions. This supportive atmosphere affects students' views on risk and opportunity and helps develop essential skills for managing ventures. To effectively cultivate an entrepreneurial culture among future leaders, it is important to understand how these environmental elements, along with Entrepreneurial Self-Efficacy (ESE) and Family Business Involvement (FBI), contribute to enhancing students' entrepreneurial propensity. Universities play a pivotal role in promotion entrepreneurial thinking by providing resources such as laboratories, research centers, and academic programs tailored for entrepreneurship, alongside faculty mentorship and practical experiences like internships and incubators (Fayolle & Gailly, 2015; Kuratko, 2005). These supportive environments encourage creativity, risk-taking, and collaboration, crucial for entrepreneurial success (Liñán & Fayolle, 2015). Entrepreneurial role models and networking opportunities further enhance students' entrepreneurial intentions (Fini et al., 2017). However, challenges such as bureaucratic hurdles and inadequate funding can undermine these efforts (Guerrero et al., 2019). Self-efficacy, as conceptualized by Bandura (1977), mediates the impact of the university environment on students' entrepreneurial propensity, with supportive settings boosting students' self-efficacy and, consequently, their entrepreneurial intentions (Guerrero et al., 2016; Chen et al., 1998; Krueger et al., 2000). Family business involvement also influences innovation and decision-making, with active participation fostering a commitment to innovation (Zellweger et al., 2020). Despite these insights, Pakistani universities face significant gaps in nurturing entrepreneurial skills, including a lack of practical experience in business planning and financial management, insufficient support structures, and limited interdisciplinary collaboration (Fayolle & Gailly, 2015; Shahjehan & Afsar, 2019; Guerrero et al., 2019; Urban & Kujinga, 2017). Additionally, inadequate collaboration between universities, industries, and government bodies hampers access to mentorship and industry insights (Guerrero et al., 2019; Dehghanpour Farashah et al., 2020). Addressing these shortcomings through a supportive policy and regulatory framework is essential for cultivating a thriving entrepreneurial ecosystem (Zhuang & Sun, 2023; Urban & Kujinga, 2017).

Problem Statement of the Research Study

Public sector universities in Pakistan face significant challenges, such as financial constraints and insufficient entrepreneurial support (Mubarakshoeva, 2015; Ali, 2020). However, there is a notable gap in understanding how these issues specifically affect the development of students' entrepreneurial skills. While previous research highlights a lack of engagement with research (Mahesar, 2020) and the need for a supportive academic environment (Shahjehan & Afsar, 2019),

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there is limited exploration of how financial crises and institutional weaknesses impact entrepreneurial outcomes. A supportive university environment is crucial for fostering entrepreneurial tendencies among students (Moscardini et al., 2022), as emphasized by Amofah and Saladrigues (2022). Given the varying entrepreneurial inclinations across different social and cultural contexts (Badghish et al., 2022), there is a need for further research on how university environments shape entrepreneurial propensities, particularly in Khyber Pakhtunkhwa's public sector universities.

Objectives of the Study

1. To examine the entrepreneurial propensity of students by the influence of the university environment in Khyber Pakhtunkhwa's public sector universities
2. To explore the mediating role of entrepreneurial self-efficacy between the entrepreneurial propensity of students and environment of the university in Khyber Pakhtunkhwa's public sector universities

Research Questions

1. How does the university environment impact the entrepreneurial propensity of students in public sector universities in Khyber Pakhtunkhwa?
2. What role does entrepreneurial self-efficacy play in the relationship between students' entrepreneurial propensity and their university environment in these institutions?
3. What is the role of family business involvement in the relationship between students' entrepreneurial propensity and their university environment in these institutions?

Significance of the Study

This study offers crucial insights for policymakers, university administrators, and researchers by highlighting how university environments influence students' entrepreneurial tendencies. It provides both empirical and theoretical frameworks, such as Social Cognitive Theory, Theory of Planned Behavior, and Resource-Based Theory. The research sheds light on the entrepreneurial propensity of students across various universities in Khyber Pakhtunkhwa and explores how academic settings affect entrepreneurial behavior, emphasizing the importance of supportive environments and self-efficacy. For policymakers and university leaders, it offers guidance on developing effective educational programs and support systems, while researchers benefit from a foundational basis for future studies in entrepreneurship education.

University Environment (UE)

Entrepreneurship education is a critical component of the university environment that aims to prepare students for entrepreneurial endeavors. Research highlighted several key aspects of entrepreneurial education that influence students' entrepreneurial propensity: Courses and workshops focused on business planning, market analysis, financial management, and pitching techniques prepare students with practical skills necessary for beginning and scaling ventures (Kuratko, 2005). Practical experiences such as internships, startup projects, and industry collaborations allow students to apply theoretical knowledge in real-world settings. This experiential learning approach enhances their understanding of entrepreneurial processes and challenges (Fayolle & Gailly, 2015) Exposure to successful entrepreneurs through guest lectures, alumni

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networks, and industry partnerships inspires students and provides them with valuable networking opportunities. Role models serve as mentors and sources of advice, encouraging students to pursue entrepreneurial paths (Liñán & Fayolle, 2015). Integrating entrepreneurship education across different academic disciplines encourages collaboration and innovation. Students from diverse backgrounds bring unique perspectives to entrepreneurial ventures, fostering creativity and problem-solving skills (Fini et al., 2017). Supportive structures within universities complement entrepreneurship education by providing practical assistance, guidance, and resources to aspire entrepreneurs. These programs offer mentorship, workspace, funding opportunities, and networking events tailored to support early-stage startups. Incubators encourage ventures through the initial stages of development, while accelerators focus on rapid growth and scaling (Guerrero et al., 2019) Access to seed funding, grants, and venture capital networks enables students to finance their entrepreneurial ventures. Financial support reduces barriers to entry and encourages students to pursue entrepreneurial opportunities (Kuratko, 2005) Dedicated centers or institutes within universities serve as hubs for entrepreneurship activities, fostering a community of compatible individuals and providing educational resources, workshops, and consulting services (Fayolle & Gailly, 2015).

Entrepreneurial Self-Efficacy (ESE)

Entrepreneurship research highlights self-efficacy as a crucial psychological concept impacting entrepreneurial intention, behavior, and success. According to Bandura's social cognitive theory, self-efficacy (ESE) is defined as one's belief in their ability to organize and execute actions required to achieve specific goals (Bandura, 1977). In entrepreneurship, this belief pertains to the confidence in one's capacity to identify opportunities, manage resources, and navigate obstacles in starting and managing a business (Chen et al., 1998; Boyd & Vozikis, 1994). High ESE is linked to stronger entrepreneurial intentions, greater persistence, and higher success rates (Liñán & Chen, 2009), with ESE being hypothesized across dimensions such as opportunity recognition, risk-taking, and resource utilization (Chen et al., 1998). Research underscores that exposure to entrepreneurship education, practical experiences, and mentorship enhances ESE, which in turn influences entrepreneurial behaviors and outcomes (Kautonen et al., 2015; Bergmann et al., 2016). Overcoming challenges and achieving milestones also strengthen ESE (Krueger et al., 2000), while effective education and supportive environments foster ESE through experiential learning (Fayolle & Gailly, 2008; Guerrero et al., 2016). Recent studies further explore how ESE affects entrepreneurial behaviors and success, considering factors like prior experience, social capital, and cultural contexts (Peterman & Kennedy, 2003; Obschonka et al., 2018; Liñán et al., 2011), with longitudinal research investigating its influence on long-term success and venture performance (Hmieleski & Carr, 2007).

Family Business Involvement (FBP)

Family business involvement plays a crucial role in shaping various aspects of entrepreneurial ventures, influencing governance, innovation, risk management, and strategic direction. Recent research highlights several key dimensions of this influence. Effective governance structures and succession planning are vital for

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the long-term success of family businesses. Zhuang and Sun (2023) emphasize that clear governance and the inclusion of non-family executives can reduce conflicts and ensure smoother transitions. The impact of family involvement on innovation and risk-taking is also significant; Zellweger et al. (2020) found that while family firms may exhibit higher risk aversion, they are also strongly committed to innovation when family members are actively engaged, balancing risk with creativity. Social networks and support systems, including mentorship, further enhance family businesses' performance by leveraging resources and providing critical support (Obschonka et al., 2018). Additionally, family firms often exhibit unique strategic characteristics influenced by the family's long-term vision and values, which can shape their approach to growth and innovation (Chua et al., 2022). Financial performance and risk management are closely linked to family involvement, with family firms sometimes adopting conservative financial strategies that impact their growth potential (Arregle et al., 2021). Moreover, generational differences within family businesses can lead to varied entrepreneurial orientations and strategies, as different generations bring distinct perspectives to business operations (Sharma et al., 2023). Collectively, these studies underscore the multifaceted impact of family involvement on business performance and strategy, highlighting the importance of governance, innovation, financial management, and generational dynamics.

Students' Entrepreneurial Propensity (SEP)

Students' entrepreneurial propensity refers to their likelihood to engage in entrepreneurial activities, including starting and managing businesses. This propensity involves intentions, behaviors, and the development of entrepreneurial attitudes and skills, measured through attitudes, intentions, and participation in relevant activities (Sánchez, 2022; Martin et al., 2021). Research highlights several factors influencing this propensity: Entrepreneurship education significantly boosts students' entrepreneurial intentions and self-efficacy (Lee et al., 2023). Personality traits such as openness and self-efficacy are linked to higher entrepreneurial intentions (Costa et al., 2022). Social networks and support systems, including mentorship and peer support, enhance students' confidence and engagement in entrepreneurship (Osei et al., 2023). Technological advancements, such as digital tools and platforms, improve students' ability to innovate and engage in entrepreneurial activities (Xu et al., 2024). These findings underscore the importance of combining education, personality development, social support, and technology to foster students' entrepreneurial propensity.

Supporting Theories

Social Learning Theory (Bandura, 1977) posits that individuals learn through observing role models and reinforcement, suggesting that exposure to entrepreneurial mentors and experiences within universities shapes students' beliefs and behaviors. The Theory of Planned Behavior (Ajzen, 1991) asserts that attitudes, subjective norms, and perceived behavioral control influence entrepreneurial intentions, with entrepreneurial self-efficacy acting as a mediator between the university environment and students' entrepreneurial behaviors. Institutional Theory (Meyer & Rowan, 1977) emphasizes that institutional norms and support structures impact individuals' entrepreneurial actions. Integrating these theories provides a framework to understand how the

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university environment affects students' entrepreneurial propensity through the mediation of self-efficacy.

Conceptual Framework

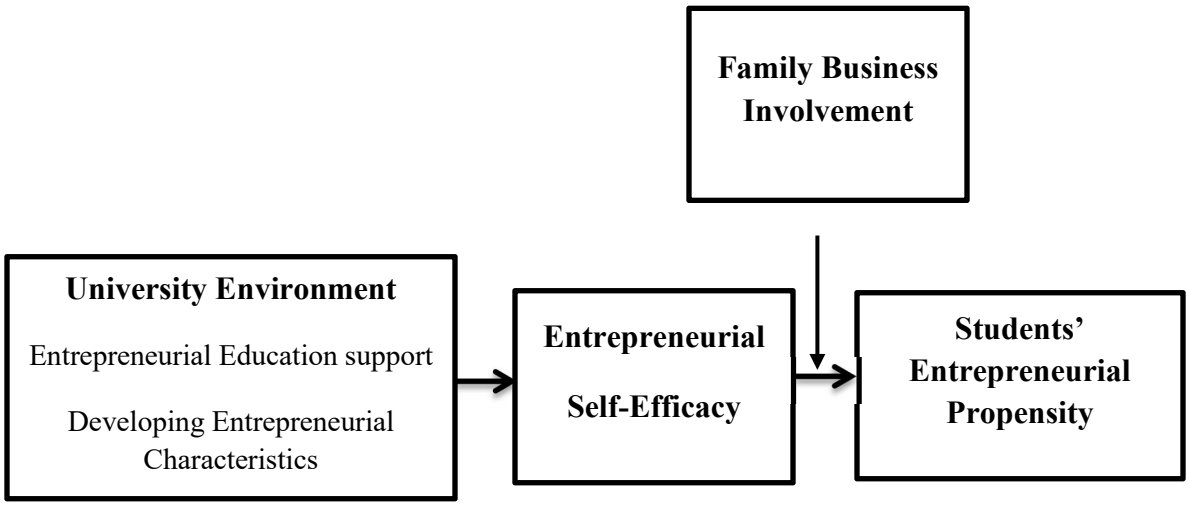

Figure 1: Conceptual frameworks Developed based on Social Learning Theory (SLT) (Bandura1977), the Theory of Planned Behavior (TPB)(Ajzen, 1991) and Institutional Theory(IT) (Meyer & Rowan, 1977)

Hypothesis

H1: The environment of the university has a notable impact on the entrepreneurial inclination of students.

H2: Students' self-efficacy in their entrepreneurial activities significantly influences their entrepreneurial inclination.

H3: Entrepreneurial Self-efficacy serves as a significant mediator between the university environment and students' entrepreneurial inclination.

H4: Involvement in family businesses plays a significant mediating role in the relationship between entrepreneurial self-confidence and students' entrepreneurial inclination

University Environment (UE) (Independent Variable) The university environment includes various dimensions that influence students' perceptions, attitudes, and behaviors towards entrepreneurship. Infrastructure and resources, educational programs, Faculty and mentorship Institutional Support, Entrepreneurial Self-Efficacy (ESE) (Mediator) is from Social Learning Theory, serves as a mediator between the university environment and students' entrepreneurial propensity. Beliefs in Capabilities Skill development and Outcome expectations Students' Entrepreneurial Propensity (SEP) (Dependent Variable) Students' entrepreneurial propensity refers to their inclination, intentions, and actions towards entrepreneurship. Intentions, Behavior Persistence).

Research Methodology

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This study utilized a quantitative approach to explore the relationship between the university environment and entrepreneurial propensity among students in Khyber Pakhtunkhwa's universities, employing a cross-sectional research design to capture diverse student perceptions and experiences. The research targeted public sector universities in the region, focusing on five institutions selected for their strong academic infrastructure and diverse student populations. A stratified random sampling technique was used to ensure representation across four specialized departments Management Sciences, Information Technology, Economics, and Biotechnology by selecting final-year undergraduates, a key period for career decision-making. Each university contributed equally to a sample of 400 students, with balanced gender representation. Data collection involved a structured questionnaire developed from existing literature, covering demographic information, perceptions of the university environment, participation in entrepreneurship education, and measures of entrepreneurial propensity. The researcher visited the universities to obtain consent and ensure participant engagement, set a specific data collection period, and provided instructions to enhance response accuracy and participation rates, while addressing ethical considerations and acknowledging study limitations.

Data Analysis Techniques

Data was collected through structure questionnaire and measured with a Likert five-point scale, A scale ranging from 1 (strongly disagree) to 5 (strongly agree). This method was chosen for its ability to capture attitudes and opinions effectively a method endorsed by Babbie and Ajzen (1990) and commonly utilized in entrepreneurship research (Linan & Chen, 2009). The study assessed various aspects of the university environment related to entrepreneurial development and education, drawing from frameworks by Saeed et al. (2015), Fayolle & Liñán (2014), and others. Key dimensions explored included university environment, entrepreneurial self-efficacy, and students' entrepreneurial propensity, supported by established scales and frameworks in the literature. Data obtained from participants; the Likert scale responses were analyzed using SPSS. It is widely used statistical software package that facilitate analysis of quantitative data in social science research.

Limitations and Delimitations:

The study acknowledged potential limitations, including self-reporting biases, sample representativeness, and generalizability beyond the study context of public sector universities in KP. Delimitations defined the scope of the study specifically to KP's public sector universities, excluding private institutions and universities in another region

Data Analysis and Results

Table 1: Universities Information Universities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kohat University	80	20.0	20.0	20.0
	Bannu University	80	20.0	20.0	40.0
	Peshawar University	80	20.0	20.0	60.0
	University of Mardan	80	20.0	20.0	80.0

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(Abdul wali Khan) D.I Khan Gomal University	80	20.0	20.0	100.0
Total	400	100.0	100.0	

Table 2: Departments Information

		Frequency	Percent	Valid Percent	Cumulative %
Valid	Computer science	100	25.0	25.0	25.0
	Management sciences	100	25.0	25.0	50.0
	Economics	100	25.0	25.0	75.0
	Biotechnology	100	25.0	25.0	100.0
	Total	400	100.0	100.0	

Table 3 : Gender Information

		Number of participants	Participants %	Valid %	Cumulative %
Valid	Female	150	38	38	38
	Male	248	62	62	100
	Total	400	100.0	100.0	100

Table 4 : Participants' age Information

		Participants	Participants %	Valid %	Cumulative %
Valid	18	1	.3	.3	3.5
	19	4	1.0	1.0	4.5
	20	26	6.5	6.5	11.0
	21	138	34.5	34.5	45.5
	22	162	40.5	40.5	86.0
	23	53	13.3	13.3	99.3
	24	3	.8	.8	100.0
	Total	400	100.0	100.0	

The participant distribution across the five universities—KUST Kohat, University of Bunnu, University of Peshawar, Abdul Wali Khan University of Mardan, and Gomal University D.I. Khan—was perfectly balanced, with each contributing 80 participants, representing 20% of the total 400. The sample was equally divided among four fields of study: Computer Science, Management Sciences, Economics, and Biotechnology, ensuring balanced representation across academic disciplines. However, the gender distribution revealed a significant imbalance with 248 male (62%) and 150 female (38%) participants. Age

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distribution was concentrated in the 21 and 22 age groups, with 138 participants aged 21 (34.5%) and 162 aged 22 (40.5%), together making up 75% of the sample, while younger and older age groups were underrepresented

Reliability Test

Table 5: Reliability

	Alpha	Number of Items
UE	.935	9
ESE	.896	4
FBI	.914	4
SEP	.923	5

The statistical analysis of the study's variables provided a clear view of their reliability and descriptive statistics. The reliability of the measurement scales used for the different constructs is assessed using Cronbach's Alpha, which measures internal consistency. For the University Environment (UE) concept, which consisted of 9 items, Cronbach's Alpha is .935. This high value indicated excellent internal consistency, The Entrepreneurial Self-Efficacy (ESE) scale, comprising 4 items, has a Cronbach's Alpha of .896, reflecting strong reliability and consistent measurement of the self-efficacy construct. FBI with 4 items alpha value is .914 and the Students' Entrepreneurial Propensity (SEP) scale, with 5 items, showed a Cronbach's Alpha of .923, demonstrating very good internal consistency and reliability in assessing students' entrepreneurial tendencies.

Table 6: Descriptive Analyses

	Participants	Min	Max	Mean	Std. Dev
UE	400	1	4	3	.97
ESE	400	1	5	3	.87
FBI	400	1	5	3	1.0
SEP	400	1	5	3	.98
Valid N (listwise)	400				

Table 7: Correlation Analysis

		UE	ESE	FBI	SEP	
UE	Correlation	1	.	.	.	.

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	Sig		.	.	.
	N	400			
	Correlation	.819**	1	.	.
ESE	Sig	.000		.	.
	N	400			
	Correlation	.845**	.847**	1	.
FBI	Sig	.000	.000		.
	N	400	400		
	Correlation	.810**	.840**	.845**	1
SEP	Sig	.000	.000	.000	
	N	400	400	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The tables provide a comprehensive overview of four variables: UE, ESE, FBI, and SEP based on a sample of 400 observations. The descriptive statistics table reveals that each variable has a mean of 3.00, with standard deviations ranging from 0.87 to 1.00, indicating some variability around this central value. In the correlation analysis table, significant positive correlations are observed among all pairs of variables. Specifically, UE shows strong positive correlations with ESE, r 0.819, FBI, r 0.845 and SEP, r. 0.810 Likewise, ESE is highly correlated with FBI, r.0.847 and SEP, r. 0.840, and FBI is closely related to SEP, r. 0.845 These findings suggest that the variables are interconnected, reflecting a consistent relationship across the dataset.

Regression Analysis

Impact of University Environment (Independent variable) on Students' Entrepreneurial Propensity (dependent variable

Table 8: Model Summary

Model	R	R 2	Adj. R 2	Std. Err. Estimate
1	.810[a]	.657	.656	2.89520

a. P: UE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6386.648	1	6386.648	761.931	.000[b]
	Residual	3336.112	398	8.382		
	Total	9722.760	399			

a. Dependent Variable: SEP
b. Predictors: (Constant), UE

Table 9: ANOVA

Table 10: Coefficients

Model		Unstandardized		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.182	.490		10.585	.000
	UE	.456	.017	.810	27.603	.000

a. DV SEP
b. P (UE)

The regression analysis examined how the University Environment (UE) influences Students' Entrepreneurial Propensity (SEP). The model summary revealed a strong correlation, with an R value of .810 and an R^2 of .657, indicating that around 65.7% of the variation in SEP is explained by UE. The adjusted R^2 is .656, which is close to the R^2, suggesting the model fits the data well. The standard error of the estimate is 2.89520, representing the average deviation of observed SEP values from the predicted values. ANOVA results show a high F-value of 761.931 and a p-value of .000, demonstrating that the regression model significantly predicts SEP. In the coefficients table, the unstandardized coefficient for UE is .456, meaning that for each one-unit increase in UE, SEP rises by .456 units. The standardized coefficient (Beta) is .810, indicating a strong positive impact of UE on SEP. The constant is 5.182, and both the coefficient for UE and the constant are statistically significant, reinforcing the robustness and significance of the regression model.

Impact of Self-efficacy on Students Entrepreneurial Propensity

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.840[a]	.706	.705	2.68123

a. P: ESE

Table 12: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6861.536	1	6861.536	954.449	.000[b]
	Residual	2861.224	398	7.189		
	Total	9722.760	399			

a. DV SEP
b. P SEP

Table 13 : Coefficients

Model		Coefficient Unstandardized B	Std. Error	Standardized Beta	T	Sig.
1	(Constant)	.364	.589		.617	.537
	ESE	1.179	.038	.840	30.894	.000

a. DV: SEP
b. P: ESE

The regression analysis evaluated the effect of Entrepreneurial Self-Efficacy (ESE) on Students' Entrepreneurial Propensity (SEP) demonstrates a strong and statistically significant relationship. The model summary showed an R value of .840 and an R^2 of .706, meaning that 70.6% of the variation in SEP is accounted for by ESE. The adjusted R^2 of .705, which is very close to R^2, indicates a precise model fit. The standard error of the estimate is 2.68123, representing the average deviation of observed SEP values from the predicted values. ANOVA results reveal an F-value of 954.449 and a p-value of .000, confirming the model's significant predictive capability for SEP. According to the coefficients table, the unstandardized coefficient for ESE is 1.179, meaning that each one-unit increase in ESE leads to a 1.179-unit increase in SEP. The standardized coefficient (Beta) is .840, reflecting a strong positive effect of ESE on SEP. The high R^2 and significant F and t-values underscore the substantial and meaningful influence of ESE on SEP, demonstrating the models strong and reliable predictive ability.

Impact of University environment (independent variable) through Students' Entrepreneurial Self-efficacy (mediating variable) and Students' Entrepreneurial Propensity (dependent variable)

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867[a]	.751	.750	2.46873

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a. Predictors: (Constant), ESE, UE

Table 15: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7303.185	2	3651.593	599.147	.000[b]
	Residual	2419.575	397	6.095		
	Total	9722.760	399			

a. Dependent Variable: SEP

b. Predictors: (Constant), ESE, UE

Table 16: Coefficients

Model		Coefficient Unstandardized B	Std. Error	Standardized Beta	T	Sig.
1	(Constant)	.870	.546		1.594	.112
	UE	.209	.025	.372	8.513	.000
	ESE	.752	.061	.536	12.263	.000

a. Dependent Variable: SEP

The regression analysis offers significant insights into the roles of University Environment (UE) as an independent variable, Entrepreneurial Self-Efficacy (ESE) as a mediating variable, and Students' Entrepreneurial Propensity (SEP) as the dependent variable. The model summary shows a correlation coefficient R of .867 and an R^2 of .751, indicating that 75.1% of the variance in SEP is explained by UE and ESE, with an adjusted R^2 of .750 confirming the model's accuracy in representing the variance while accounting for the number of predictors. The standard error of the estimate is 2.46873, reflecting the average deviation of observed SEP values from the predicted values. ANOVA results reveal the model's high significance, with an F-value of 599.147 and a p-value of .000, indicating that the model significantly predicts SEP and that
both UE and ESE are influential. The coefficients table shows an unstandardized coefficient for UE of .209 (standardized Beta of .372), signifying that a one-unit increase in UE leads to a 0.209-unit increase in SEP, and for ESE, an unstandardized coefficient of .752 (standardized Beta of .536), suggesting a one-unit increase in ESE results in a 0.752-unit increase in SEP. The constant is 0.870 but is not statistically significant. ESE functions as a mediating variable between UE and SEP, with its higher Beta value compared to UE indicating a critical role in this relationship. This highlights that while UE directly influences SEP, part of its effect is mediated through ESE, emphasizing that a supportive university environment boosts students' self-efficacy, which in turn enhances their entrepreneurial propensity.

Table 17: Model Summary

Model	R	R 2	Adj. R 2	Std. Error of the Estimate
1	.877[a]	.769	.767	.47608

a. Dependent Variable: SEP
b. P: ESE, FBI

Table 18: *ANOVA*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	298.928	2	149.464	659.432	.000
	Residual	89.982	397	.227		
	Total	388.910	399			

a. Dependent Variable: SEP

b. P: ESE, FBI

Table 19: *Coefficient*

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.250	.106		2.362	.019
	FBI	.450	.043	.472	10.390	.000
	ESE	.494	.051	.440	9.689	.000

a. Dependent Variable: SEP
b. P:ESE,FBI

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Findings

The study explores how the UE influences SEP in public sector universities in Khyber Pakhtunkhwa. It finds that the measurement scales for University Environment (UE), Entrepreneurial Self-Efficacy ESE, FBI and SEP are highly reliable, with Cronbach's Alpha values ranging from .896 to .935. Descriptive statistics indicate that the mean for all variables is 3.00, with standard deviations between 0.87 and 1.00, reflecting some variability in the data. Correlation analysis uncovers strong positive relationships among the variables, with notable correlations between UE and ESE r. 0.819, UE and FBI r. 0.845 and UE and SEP r.

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0.810. Regression analysis demonstrates that UE significantly affects SEP, explaining 65.7% of the variance, with each one-unit increase in UE leading to a 0.456-unit increase in SEP. ESE also significantly impacts SEP, accounting for 70.6% of the variance, where a one-unit increase in ESE results in a 1.179-unit increase in SEP. Together, UE and ESE explain 75.1% of the variance in SEP, with ESE mediating the effect of UE on SEP. Additionally, the study highlights that FBI moderates the relationship between ESE and SEP, with Beta values of .450 for FBI and .494 for ESE, indicating that FBI enhances the impact of ESE on SEP and underscores the role of family business involvement in fostering entrepreneurial propensity.

Originality of the Study

This study offers a novel investigation into the impact of the UE on SEP, particularly within public sector universities in KPK, by integrating ESE and FBI into its framework. Its originality lies in examining ESE as a mediating variable between the UE and SEP, providing new insights into how a supportive university environment enhances self-efficacy and influences entrepreneurial intentions. Moreover, the research uniquely highlights the moderating role of FBI, showing how family business involvement increases the effects of ESE on entrepreneurial propensity, thus adding a valuable dimension to understanding family factors in entrepreneurial development. By focusing on this specific regional context, the study addresses a gap in the literature and offers region-specific insights that enhance the importance and applicability of the findings to similar educational and cultural settings.

Contribution to Theories

The study significantly contributes to Social Cognitive Theory (Bandura, 1986) by illustrating how Entrepreneurial Self-Efficacy (ESE) mediates the relationship between the university environment (UE) and students' entrepreneurial propensity (SEP). Bandura's theory highlights the key role of self-efficacy in shaping behavior and outcomes, and the study's findings empirically support this by showing that a supportive university environment enhances students' self-efficacy, thereby boosting their entrepreneurial intentions. Furthermore, the research extends the Theory of Planned Behavior (Ajzen, 1991) by integrating the university environment and ESE into the model of entrepreneurial propensity, demonstrating how contextual factors and perceived behavioral control impact entrepreneurial intentions. The study enriches Institutional Theory (Scott, 2001) by highlighting how the university environment functions as an institutional factor influencing entrepreneurial propensity, thus extending the application of the theory to the educational sector and illustrating how institutional support can significantly impact entrepreneurial outcomes.

Recommendations

Based on the study's findings, it is essential for public sector universities in Khyber Pakhtunkhwa to enhance their support programs for entrepreneurship. Universities should focus on creating an environment conducive to entrepreneurial activities by investing in resources, mentorship programs, and practical business training. The strong positive impact of the university environment on students' entrepreneurial propensity emphasizes the need for developing a strong ecosystem that supports entrepreneurial ambitions.

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Establishing incubators, networking opportunities, and industry collaborations will better equip students for entrepreneurial ventures and raise a more vibrant entrepreneurial culture. Besides, given the significant influence of Entrepreneurial Self-Efficacy (ESE) on students' entrepreneurial propensity, universities should implement targeted programs to enhance self-efficacy through workshops, seminars, and hands-on projects. Strengthening self-efficacy supports with Social Cognitive Theory, emphasizing the role of confidence in entrepreneurial success. The study also highlights the value of Family Business Involvement (FBI) by connecting with local family-owned businesses to offer mentorship and practical experiences. Modifying entrepreneurial education to the regional context and considering local business practices and cultural elements will further enhance the relevance and impact of these programs. Future research should explore how different university environment and familial factors affect entrepreneurial propensity in various regions, contributing to more effective strategies for developing entrepreneurship.

Conclusion

The study demonstrates that the university environment has a significant impact on students' entrepreneurial propensity, with entrepreneurial self-efficacy serving as a key mediator in this dynamic. The reliability of the measurement scales and the strong positive correlations among the university environment, entrepreneurial self-efficacy, family business involvement, and entrepreneurial propensity highlight the critical role these factors play in nurturing entrepreneurship. University environment and self-efficacy together explain a considerable portion of the variance in entrepreneurial propensity, with family business involvement further amplifying the effect of self-efficacy. These findings emphasize the importance of creating supportive university settings and encouraging family business involvement to enhance students' entrepreneurial potential.

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