Journal of Social & Organizational Matters

Vol 3 No 4 (2024): 290-306

# Impact of Entrepreneurship Education, Need for Achievement, and Entrepreneurial Intention on Entrepreneurial Self-Efficacy among Students in Pakistan

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***Keywords:*** *Entrepreneurial intention, Entrepreneurial education, Entrepreneurial self-efficacy, Need for achievement, Openness and Confidentiality*

**DOI No:** https://doi.org/10.56976/jsom.v3i4.135

*This study takes a comprehensive approach to entrepreneurship education (EE) among Pakistani business students, exploring the intricate interplay of entrepreneurial self-efficacy (ESE), need for achievement (NFA), and entrepreneurial intention (EI). Focusing on business students with specific knowledge and perspectives on entrepreneurship in Pakistan, this study aims to bridge the existing research gap by drawing on various theories and philosophies. The main objective is to demonstrate how EE influences the development of ESE, NFA, and EI, thereby providing a thorough understanding for university administrators and policymakers to design targeted EE programs. The data was collected from 104 individuals using Google Forms and analyzed through Smart PLS 4.0, ensuring ethics, participant consent, openness, and confidentiality. The results offer a comprehensive view of the entrepreneurial aspirations of Pakistani university students, thereby enriching academic discourse and informing the formulation of educational policies and practices.*

## 1. Introduction

One significant metric of entrepreneurial potential is entrepreneurial intention (EI), a person's self-approved belief in founding a new firm in the future (Thompson, 2009). Over several decades, it has attracted significant scholarly attention, mainly due to the influence of influential theories such as Shapero and Sokol's (1982) Entrepreneurial Event Theory (EET) and Ajzen's (1991) Theory of Planned Behavior (TPB), which highlight the need for deliberate planning and extensive preparation because of the inherent risks and uncertainties associated with entrepreneurial endeavors (Vivekananth et al., 2023). As a consequence, the purpose is vital to grasping entrepreneurial activity (EA) since it typically works as a stand-in for actual entrepreneurial conduct in research. The development of an individual's entrepreneurial mindset and ability is considerably encouraged by entrepreneurship education (EE). It tries to create the attitudes, talents, and behaviors essential for successful entrepreneurship (Wilson et al., 2009; Steenekamp, 2013; Montes et al., 2023).

Notwithstanding its potential benefits, EE meets obstacles because of its various aims, techniques, and learning settings, which rise to various program designs and vocabulary (Pittaway & Cope, 2007; Pittaway Edwards, 2012,Raj et al., 2022). However, research has demonstrated that EE helps boost entrepreneurial qualities like the desire for achievement (NFA) and entrepreneurial self-efficacy (ESE) (Hoppe et al., 2017; Syed et al., 2024). Another study conducted by Hussain, (2025) states the importance of entrepreneurial qualities and its orientation towards achievement.

The link between EE, EI, ESE, and NFA has been widely examined in studies, notably among business and entrepreneurial students in Pakistan (Shah & Soomro, 2017; Sidratulmunthah et al., 2018; Shakir, 2019; Ndofirepi, 2020). However, there is a considerable gap in understanding these processes among commerce students, who typically demonstrate a strong tendency towards entrepreneurship but are underrepresented in research (Bamba et al., 2013; Davey et al., 2016). Bridging this gap is vital for thoroughly understanding the effect of EE on students' entrepreneurial thinking and objectives (Ntshangase & Ezeuduji, 2023). This study attempts to address these gaps by analyzing the effect of EE in molding students' ESE, NFA, and, eventually, their EI, especially among commerce students in Pakistan (Hassan et al., 2022). By diving into the less-explored link between NFA and EE and its implications for EI, this research intends to contribute to a better understanding of the processes underpinning the success of EE in encouraging entrepreneurship (Bağış et al., 2023; Soomro & Shah, 2022). The aims of this investigation are threefold:

- Evaluate the efficacy of EE in boosting kids' ESE, NFA, and EI.
- Investigate the link between NFA and EE and its influence on EI.
- Provide empirical facts to influence the creation of EE programs targeted to boost students' entrepreneurial capacities, contributing to the growth of entrepreneurship education conceptually and practically.

By confirming these links in the Pakistani context, this study tries to give significant insights to policymakers, educators, and stakeholders in planning and executing successful EE initiatives that support a vibrant entrepreneurial environment. By strengthening students'

entrepreneurial thinking and ability, this project hopes to contribute to supporting entrepreneurship and innovation in Pakistan and abroad.

## 2. Literature Review

### 2.1 Theoretical Framework

The importance of an individual's entrepreneurial intention (EI), which indicates their propensity to launch and oversee new businesses, is becoming more acknowledged as a crucial factor in determining entrepreneurial behavior. Substantiating this idea are several psychological, educational, and socio-cultural aspects that influence an individual's inclination to be an entrepreneur. Entrepreneurship Education (EE) plays a pivotal role in this discussion because it aims to improve people's preparedness and self-assurance to participate in entrepreneurial activities by developing their entrepreneurial mindset, knowledge, and abilities (Shouming et al., 2012; Kusumajanto, 2015; Hoang et al., 2020). Examining EI among Pakistani business students, this research is based on Ajzen's Theory of Planned Behavior (TPB). Theory of Planned Behavior (TPB) states that factors like Need for Achievement (NFA) and Entrepreneurial Self-Efficacy (ESE) are closely related to people's intent to start their businesses (Ajzen, 1991). According to the hypothesis, EI may improve significantly by focusing on these areas using EE (Ndofirepi, 2020).

A person's risk-taking propensity (RP) and internal locus of control (ILoC) are other essential personality factors impacting EI . According to research (Radu & Redien-Collot, 2008; Wincent & Ortqvist, 2009, (Malhotra & Kiran, 2024; Scafarto et al., 2019; Subagyo et al., 2023), these characteristics may be developed via educational interventions, with EE being an essential component of these programs. According to Shouming et al. (2012), successful entrepreneurs tend to have high NFA since it is linked to traits like a willingness to take chances and a tenacity that pays off (Ladokun et al., 2022; Soomro & Shah, 2022).

One additional critical component that EE affects is entrepreneurial self-efficacy (ESE). Shah et al. (2020) revealed that EE favorably improves entrepreneurial attitudes, subjective norms, and self-efficacy among higher education students in Pakistan. Similarly, Wardana et al. (2020) discovered that EE at Indonesian colleges strongly impacts ESE, entrepreneurial mentality, and attitudes. These results coincide with Bandura's Social Cognitive Theory, which claims that self-efficacy beliefs are crucial for motivation and behavior (Bandura, 1986). By boosting ESE, EE instills the confidence necessary to overcome the uncertainties and obstacles inherent in entrepreneurial activities (Puni et al., 2018; Memon et al., 2019). The social and cultural background also plays a crucial role in forming EI. Social capital, defined as the networks and connections that give support and resources, dramatically influences perceived social norms, self-efficacy, and the attractiveness of entrepreneurship (Ali & Yousuf, 2019; England Bayrón, 2013; Rakicevic et al., 2023; Tetteh et al., 2022).

This is especially visible in contexts where solid social networks and institutional support structures are available, raising entrepreneurial activity's chance. Furthermore, the responsibility of institutions to deliver effective EE programs cannot be emphasized (Kisubi et al., 2021; Pham et al., 2023; Rakicevic et al., 2023). In the context of Pakistan, the research attempts to evaluate the links between Opportunity Recognition (OR), Entrepreneurship

Knowledge Acquisition (EKA), ESE, NFA, and EI among commerce students. Specifically, it attempts to test hypotheses relating to the predictive potential of OR and EKA on ESE, NFA, and EI and to explore the direct and indirect impacts of ESE and NFA on EI (Hossain et al., 2023; Park et al., 2010; Soomro et al., 2020). Commerce students possess the abilities, attitudes, and knowledge essential to conduct business and commerce efficiently (Bamba et al., 2013; Montes et al., 2023; Nugraha et al., 2023; Soomro et al., 2020). However, the supply of EE to this population remains underexplored despite its potential to boost their business capacities and entrepreneurial ambitions considerably (Davey et al., 2016). The present research primarily focuses on students of entrepreneurship and business, neglecting the potential of commerce students to contribute to the entrepreneurial environment (Soomro & Shah, 2015; Soomro et al., 2020).

The theoretical framework of this research incorporates numerous viewpoints to provide a complete understanding of the elements impacting EI. Ajzen's TPB lays the basis for connecting attitudes, subjective norms, and perceived behavioral control to EI. Bandura's Social Cognitive Theory reinforces this by highlighting the significance of self-efficacy (Tetteh et al., 2022; Vivekananth et al., 2023). Additionally, McClelland's idea of the Need for Achievement and Rotter's notion of Internal Locus of Control are combined to explain the personality factors driving entrepreneurial activity (AlMalki & Durugbo, 2023; Lopes et al., 2023; Ntshangase & Ezeuduji, 2023).

This comprehensive approach allows for a complete investigation of how EE affects EI via its influence on OR, EKA, ESE, and NFA. Opportunity Recognition (OR) is regarded as a vital ability learned via EE, allowing people to discover and assess possible business possibilities (Vivekananth et al., 2023; Zaidi et al., 2023; Zhoor et al., 2017). Entrepreneurship Information Acquisition (EKA) comprises the theoretical and practical information obtained via EE, which is necessary for making informed entrepreneurial choices (Fayolle & Gailly, 2008, (Bhatti et al., 2023; Lindelöf & Hellberg, 2023; Raj et al., 2022)). ESE, as impacted by both OR and EKA, shows an individual's confidence in their capacity to undertake entrepreneurial activities (McGee et al., 2009). NFA encourages people to establish and attain ambitious objectives, a quality that may be cultivated via educational and societal factors (McClelland, 1961, Bağış et al., 2023; Soomro & Shah, 2022a).

### 2.2 Relationship by Entrepreneurial intention and Entrepreneurial self-efficacy

In the dynamics of entrepreneurship, there is a significant association between entrepreneurial intention and entrepreneurial self-efficacy, which plays an essential part in the journey of the aspiring entrepreneur (Farmer et al., 2011; Hassan et al., 2022; Hossain et al., 2023; Liguori et al., 2020; Rakicevic et al., 2023). Entrepreneurial Intention refers to a conscious and purposeful dedication to initiating and continuing entrepreneurial operations (Kerdpitak, 2022; Shahid[1] et al., 2022). It refers to an individual's understanding of their potential to undertake entrepreneurial activity successfully. This is called self-regulation of the market (Achmad et al., 2023; S. Z. Ahmad et al., 2018; Tetteh et al., 2022).

Entrepreneurial self-efficacy is a key driving force that substantially influences the realization of entrepreneurial intentions. The confidence and drive needed to translate latent wants and goals into actual commitments while starting and maintaining a firm come from an

entrepreneur's strong feeling of efficacy (Junaidi et al., 2023; KOLA, 2022; Lanero et al., 2016; Seng Te et al., 2019). Persons with great entrepreneurial effectiveness may generate stronger entrepreneurial inclinations. This desire originates from belief in one's ability to overcome problems, identify and grab opportunities, and manage company issues effectively.

Central to this connection is entrepreneur self-regulation. People who believe they can tackle complex business problems are more driven to put their ideas into tangible action. This motivation derives from the concept of having the skills and flexibility essential to dealing with unpredictability and ambiguity in business activity(Anwar et al., 2023; Olarewaju et al., 2023; Thoudam et al., 2023).

The link between organizational effectiveness and entrepreneurial goals provides a rational and motivating underpinning for entrepreneurship. It underlines the fact that individuals who believe in their business do not merely have entrepreneurial goals; they are also more likely to take proactive actions to turn those goals into actual results. Therefore, an individual's level of entrepreneurial efficacy considerably influences the formation and realization of entrepreneurial intentions (Kerdpitak, 2022; Leiva et al., 2023).

In summary, the association between entrepreneurial intentions and entrepreneurial self-efficacy implies that competencies play an essential role in inspiring individuals to start an entrepreneurial journey (Atmono et al., 2023; Junaidi et al., 2023; Supervía et al., 2023). This complete knowledge is vital for researchers and practitioners to establish an entrepreneurship ecosystem that recognizes and supports the proper relationship between self-regulation and entrepreneurial desires (Ruiz-Dotras & Lladós-Masllorens, 2022; Zhang et al., 2022).

### 2.3 Relationship by the way Entrepreneurial Business Intentions and Entrepreneurial Education

The interaction between entrepreneurship education and entrepreneurial goals (EBI) establishes an active link that serves and motivates those interested in entrepreneurship. Business education emerges as a significant strength, offering the knowledge and skills essential for business and a comprehensive understanding of business thinking and distinct business concepts. Integrate your new knowledge into accurate plans to get started and move forward (Babbar et al., 2023; Chauhan et al., 2022). Participants in business education programs learn not just practical knowledge but also self-efficacy. These training programs go a long way in creating confidence in pursuing a career as an entrepreneur. Aspiring entrepreneurs can use the practical and theoretical knowledge gained through these training programs to develop their firms (Bhatti et al., 2023; Farmer et al., 2011; Hossain et al., 2023). Practical application of gained skills and an in-depth understanding of the business ecosystem helps individuals build confidence and better cope with the intricacies of the corporate world.

Thus, entrepreneurship education is a comprehensive resource center offering individuals the resources, skills, and attitudes they need to launch their entrepreneurial path. The practical nature of these programs, along with an emphasis on encouraging entrepreneurial thinking, guarantees that participants gain not just the theoretical aspects but also the practical skills essential for a successful business (B. Ahmad et al., 2023; Owusu et al., 2018; Pauceanu et al., 2019).

In truth, business education goes beyond standard instruction and provides a holistic understanding of business. It transmits knowledge, stimulates entrepreneurship, and creates a mindset that views problems as possibilities (Bell & Bell, 2023; Kisubi et al., 2021; Ntshangase & Ezeuduji, 2023). By developing self-efficacy, increasing self-confidence, and teaching practical skills, entrepreneurial education becomes vital in helping individuals realize their entrepreneurial ambitions. Ultimately, the most significant influence of business education extends beyond the classroom, changing individuals into confident, informed, and capable entrepreneurs who can pursue their entrepreneurial goals (Ashari et al., 2022; Chauhan et al., 2022).

### 2.4 Relationship, by the way, Need for Achievement, Opportunity Recognition, and Risk-Taking Propensity

The will to achieve, the ability to perceive opportunities, and the awareness of danger generate strong partnerships in the business sector. Individuals with a high commitment to achievement display a solid and continuous desire to achieve ambitious goals. This important motivator encourages them to hunt for chances that meet their fulfillment needs. Awareness of prospective opportunities is expanding, and the willingness to invest involves measured risks. The interplay between a solid drive to achieve and the capacity to detect possibilities becomes essential to the marketing process. Individuals who desire to recognize accomplishment and seize chances that match their ultimate aims.

This can-do spirit offers them an advantage as entrepreneurs. Because taking possibilities and dealing with uncertainty are vital aspects of a company's success. The link between a (Elnadi & Gheith, 2023; Shen & Huang, 2023)to succeed and the capacity to perceive and exploit chances . Emphasizing the synergy between ambition and entrepreneurship, the desire to take measured risks is vital to translate an identified opportunity into concrete entrepreneurship.

In sum, people striving for success display more than just a desire to benefit from it. However, flexibility and risk tolerance are essential to deal with corporate unpredictability. The complicated link between demand, opportunity acceptance, and risk appetite is essential to understanding the entrepreneurial mindset. Ultimately, people driven to achieve are well-suited to be entrepreneurs. This domain includes the capacity to identify, explore, and grab opportunities and the courage to accept measured risks. This is a crucial aspect of the success of entrepreneurs.

In this context, the research examines that EE boosts OR and EKA, which in turn raises ESE and NFA, resulting in increased EI. This conceptual framework is suited to Pakistan's educational and cultural dynamics, acknowledging the specific problems and possibilities experienced by commerce students in this area. By addressing these features, the research attempts to contribute to a better knowledge of the variables influencing entrepreneurial inclinations among commerce students, filling a gap in the current literature and giving insights for developing EE programs in Pakistan (Altaf et al., 2019; Hassan et al., 2022; Soomro et al., 2020). This thorough strategy guarantees that the study is anchored in sound theoretical underpinnings, connecting its hypotheses and research questions with known theories and empirical data to validate the predicted findings.

## 3. Methodology

### 3.1 Participant

A simple random stratified sampling procedure was used to pick 104 participants, ensuring the study's sample was representative. Caution was used in the selection process. The goal was to develop a statistically sound sample that faithfully captured a variety of cities and metropolitan regions. The established sample size was judged appropriate for the scope of the study. Demographic data was gathered to get a thorough overview of the participants. It was found that 26% of the participants identified as male and 74% as female. Moreover, a sizable majority (91%) were between the ages of 21 and 25; the remaining 9% were between the ages of 15 and 20. This demographic information is crucial for understanding the study's findings since it gives a background context and makes it possible to see any sample variations. Adding such demographic data improves the results' validity and applicability within the targeted group.

### 3.2 Instrument

Entrepreneurship Education (EE) among Pakistani business students, the data gathering technique was carefully tailored to fit the unique study goals. Recognizing the relevance of knowing students' entrepreneurial orientation in the Pakistani setting, a unique questionnaire was devised to evaluate several facets of entrepreneurial ambitions comprehensively. It studies students' self-efficacy beliefs, entrepreneurial intents, and views of career options in Pakistan's evolving business climate. A 10-item questionnaire related to the primary structural factors under inquiry was complemented by four additional demographic questions aiming to acquire the participants' crucial data. This thorough method attempts to supplement the dataset with qualitative insights, permitting a more complete investigation of entrepreneurial concepts among Pakistani business students. To allow complicated quantitative analysis, a brief set of 14 survey questions recorded features of their company views utilizing a complex 5-point Likert scale to lead consumer input.

Tools and established processes from the relevant literature representing a robust approach based on relevant information were carefully included to guarantee the reliability and validity of the questionnaire. Before the full-scale adoption of the questionnaire, a pilot test was done with a group of students. This continuous refining approach enabled the questionnaire to be fine-tuned, assuring its usefulness and relevance to the more extensive study aims. By repeatedly updating the questionnaire based on the test findings, the research team may optimize the data-collecting procedure and raise the reliability and validity of the resultant data set. In summary, a thorough and methodologically rigorous approach to data collecting stressed a complex knowledge of entrepreneurial interactions among Pakistani business students. The project intends to yield vital insights that may affect policy and practice in business education and beyond through thorough questionnaire design, rigorous testing, and an emphasis on reliability and validity.

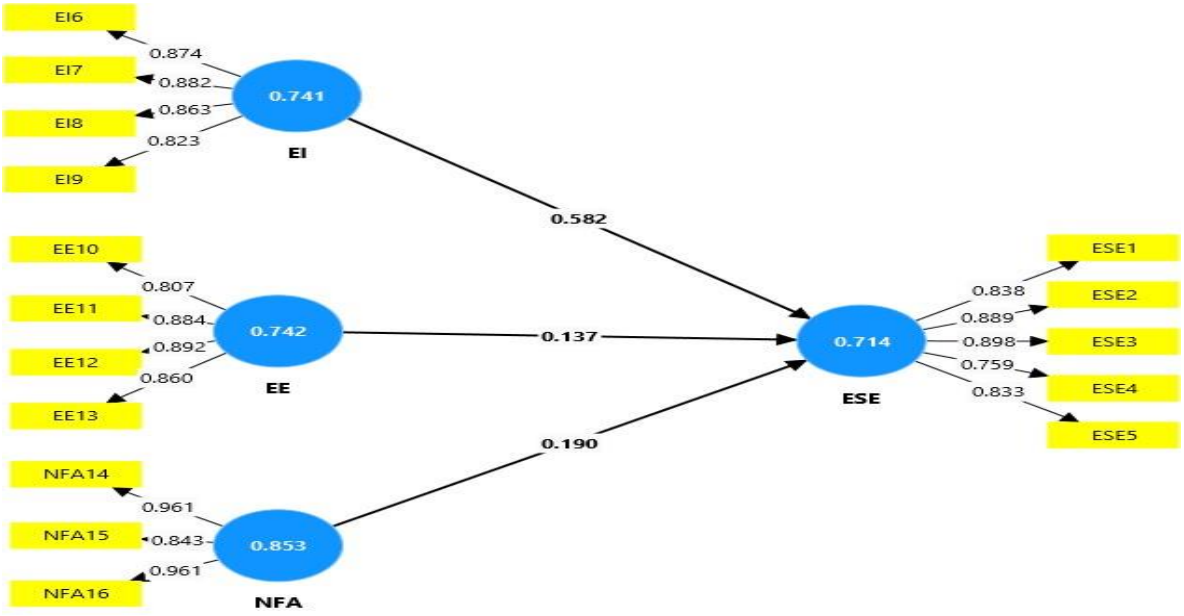
### 3.3 Procedure

This research uses the complete data collection Statistical Package for Social Sciences (SPSS) and Smart PLS-4.0 to conduct significant data analysis. This research method combines

several statistical methods to allow in-depth analysis of the collected data. Descriptive statistics provide the first picture of critical changes and describe the sample variables' range and distribution. Regression analysis helps to analyze the relationship between self-confidence and business intentions and a deeper understanding of career opportunities among students. Furthermore, subgroup analysis was conducted based on demographic variables such as age, gender, and education sector.

It improves analysis by revealing patterns and potential differences in data. Ethical considerations are essential during the research process. With a solid commitment to widespread recognition, participants were assured of anonymity and that their information would be kept confidential. This research does not just provide valuable insight into academic issues. However, it provides information on Pakistan's evidence-based education policy. This research identifies and focuses on the region's unique economic and social conditions and uses critical thinking to create a diverse understanding of entrepreneurship among students in Pakistan.

**Figure No 1: Structural Equation Model**




## 4. Results & Discussion

### 4.1 Reliability Model

Table 1 provides a summary of the dependability predictions. SPSS was applied to examine the instrument's reliability. Based on Cronbach's Alpha, the constructs were trustworthy, and the reliability value was above 0.70, as indicated by Tauheed, Shabbir and Pervez (2024b, pp. 54–65). The validity of the construct will be evaluated by analyzing the items.

**Table No 1: Reliability Model**

| Cronbach's Alpha | N of Items |
|---|---|
| .820 | 16 |

## 4.2 Construct Validity

Examining the items will determine the validity of the concept. This is because the Reliability of the variables is larger than 0.70 (shown in Table 1) for all constructions. This guarantees that the questions appropriately measure the desired constructs.

## 4.3 Regression

**Table No 2: Entrepreneurial Self-Efficacy**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 22.075 | 3 | 7.358 | 169.30 | <.001[b] |
| | Residual | 43.463 | 100 | .435 | | |
| | Total | 65.538 | 103 | | | |

a. Dependent Variable: Entrepreneurial Self-Efficacy
b. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

The ANOVA test findings (Table 2) demonstrated that the multiple regression model had significance (F = 169.30).

**Table No 3: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .580[a] | .337 | .317 | .659 |

a. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

According to Table 3, the R-squared is .580. As a consequence, our model's explanation for the dependent variable's variation is .580. According to these data, the model explains 58% of the variables.

**Table No 4: Entrepreneurial Intentions**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 8.057 | 3 | 2.686 | 4.483 | .005[b] |
| | Residual | 59.904 | 100 | .599 | | |
| | Total | 67.962 | 103 | | | |

a. Dependent Variable: Entrepreneurial Self-Efficacy
b. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

The ANOVA test findings (Table 4) demonstrated that the multiple regression model had significance (F = 4.483).

**Table No 5: Model Summary**

| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
|---|---|---|---|---|
| 1 | .344[a] | .119 | .092 | .774 |

a. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

According to Table 5, the R-squared is .119. As a consequence, according to the R-squared value, our model's explanation for the dependent variable's variation is .580. According to these data, the model explains 11% of the variables.

**Table No 6: Entrepreneurial Education**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 13.257 | 3 | 4.419 | 2.473 | .066[b] |
| | Residual | 178.704 | 100 | 1.787 | | |
| | Total | 191.962 | 103 | | | |

a. Dependent Variable: Entrepreneurial Self-Efficacy
b. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

The ANOVA test findings (Table 6) demonstrated that the multiple regression model had significance (F = 2.473).

**Table No 7: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .263[a] | .069 | .041 | 1.337 |

a. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

According to Table 7, the R-squared is .069. As a consequence, according to the R-squared value, our model's explanation for the dependent variable's variation is .580. According to these data, the model explains 6.9% of the variables.

**Table No 8: Business Intention or Need for Achievements**

**ANOVA**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 12.472 | 3 | 4.157 | 9.087 | <.001[b] |
| | Residual | 45.749 | 100 | .457 | | |
| | Total | 58.221 | 103 | | | |

a. Dependent Variable: Entrepreneurial Self-Efficacy
b. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

The ANOVA test findings (Table 8) demonstrated that the multiple regression model had significance (F = 9.087).

**Table No 9: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .463[a] | .214 | .191 | .676 |

a. Predictors (Constant, Entrepreneurial intention, Entrepreneurship education, Need for achievement)

According to Table 9, the R-squared is .214. As a consequence, our model's explanation for the dependent variable's variation is .580. Based on these data, the model explains 21.4% of the variables.

## 5. Discussion & Conclusion

Given the dynamics of entrepreneurial intentions, comprehensive research into the business among Pakistani university students has also been instrumental in identifying the elements that impact entrepreneurial actions. These findings show the complexity of entrepreneurship by stressing the interplay of human motivations, learning chances, and socioeconomic surroundings. This study contributes to a better understanding of how education impacts the thinking and intentions of future generations of entrepreneurs by assessing how successfully Entrepreneurship Education (EE) nurtures entrepreneurial mentality and intents.

The findings highlight the transformative potential of EE in providing students with the confidence and skills required to pursue entrepreneurial ventures, as evidenced by the observed positive correlation between interest in entrepreneurship courses, entrepreneurial self-efficacy, and intention(Dongo & Barnard, 2020). This suggests that promoting entrepreneurial ambitions and reducing hurdles to admission into the entrepreneurial ecosystem may considerably benefit from concentrated educational interventions.

Furthermore, the study's outcomes underscore how vital it is for entrepreneurial education programs to address the need for achievement (NFA). Aspiring entrepreneurs should be given a strong sense of purpose and motivation, as indicated by the positive association observed between NFA and entrepreneurial effectiveness Thus, approaches for building and leveraging students' intrinsic motivations should be introduced into future EE programs in order to foster an inventive and resilient culture. There are various routes that future research may go in order to build on the insights this study gave. Insights into the patterns of entrepreneurial goals and behaviors across time may be gleaned by longitudinal study, which may also highlight the consequences of EE interventions in the long term. Furthermore, qualitative research methodologies like case studies and interviews may give a better contextual understanding of the sociocultural aspects shaping Pakistani students' inclinations to become entrepreneurs.

The limitations of this study stretch beyond academics and include measurements for economic development and policy-making. The research results may be utilized by policymakers to build evidence-based policies and programs that support entrepreneurship education and foster a climate that is conducive to the development of new enterprises (Dongo & Barnard, 2020).

By creating an inventive and entrepreneurial culture, Pakistan can leverage the potential of its youthful people to generate economic diversification and sustainable development. In summary, this study increases our awareness of the nuanced relationships that Pakistani university students have between motivation, education, and entrepreneurial ambitions. This research gives crucial guidance for educators, policymakers, and stakeholders aiming to establish a vibrant entrepreneurial ecosystem in Pakistan and elsewhere by emphasizing the effectiveness of EE interventions and the relevance of NFA in affecting entrepreneurial behaviors.

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