



## **The Entrepreneurial Mindset: Leveraging MBTI to Identify and Nurture Entrepreneurial Potential**

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### **Abstract**

Entrepreneurial mindset having entrepreneurial intention alongside with behavioral factors in personality when identified and polished may increase individual potential in innovative learning. The purpose of the study is to find and understand the link between entrepreneurial intentions and psychological types or personality types among university students. This study shows how various personality types that can influence entrepreneurial potential focusing on the Myers-Briggs Type Indicator (MBTI). A mixed-methods approach was adopted including 500 MBTI assessments, surveys, and interviews. MBTI assessment that showcases 16 domains; Extrovert(E)-Introvert (I), Sensing(S)- Intuition(I), Thinking(T)-Feeling(F), Judging(J)-Feeling(F) and a validated entrepreneurial intention questionnaire that were used to assess psychological domain like ENTJ and ENTP which were found to have higher entrepreneurial intent, particularly in students with “Intuition” (N) and “Judging” (J) traits. Significant differences in entrepreneurial intention scores across MBTI types ( $F(4, 495) = 8.27, p < 0.001$ ), indicated that psychological type plays a role in shaping entrepreneurial motivation. However, entrepreneurial success is not determined by these type alone but also by developing critical entrepreneurial skills such as resilience and adaptability in individuals. This study provides a novel insight into how behavioral-informed/leveraged education can help in providing a more diverse and robust entrepreneurial ecosystem, providing practical recommendations and hands-on method for educational institutions and policymakers in educational setting.



**Keywords:** Entrepreneurship, MBTI, Personality, Khyber Pakhtunkhwa, Entrepreneurial Intention, Innovation.

## Introduction

Entrepreneurship underlines the identification, development, and bringing an innovative business idea into product, or service to meet a need or solve a problem in a market (Carayanis et al., 2015). This process involves taking risks, innovation, organizing resources, and managing a business to achieve the financial, social, or personal goals of the venture (Lurtz & Kreutzer, 2017). Entrepreneurs are referred to those individuals who initiate and drive such process, often taking into account the uncertainties to create value for their customers, communities, and economies (Hitt et al., 2011). Such model of entrepreneurship contains the elements of innovation, risk taking, resource management, opportunity recognition and value. Creation (Ardichvili et al., 2003). Thus, it plays a key role in fostering economic growth, driving innovation, and creating equal employment opportunities.

Entrepreneurial potential is referred to a multifaceted concept (Nabi et al., 2017). This encompasses various factors as Caniëls and Motylska-Kuźma (2023) conceptualized entrepreneurship; it includes entrepreneurial intention, attitudes towards risk, innovation, opportunity recognition, and resilience of individuals. In the said context various theories have tried to explain the drivers or key elements of entrepreneurial behavior, one of the theory- planned behavior (Ajzen, 1991), suggesting that intention is the main predictor of individual behavior (A Hussain et., al 2024).

The Myers-Briggs Type Indicator (MBTI) is a tool used to assess behavioral types helping individuals to understand their preferences and choices; how to perceive the world in making decisions to their best of understanding (Quenk, 2009). The foundation of using this tool is based on Carl Jung's theory of psychological types and was developed by Isabel Briggs Myers and Katharine Cook Briggs (CAPT, 2022). The MBTI have categorized people into 16 distinct unique personality types linked to behavioral sciences based on four branches; Extraversion (E) vs. Introversion (I); Sensing (S) vs. Intuition (N); Thinking (T) vs. Feeling (F); Judging (J) vs. Perceiving (P).

Entrepreneurship in Pakistan has been trending and gaining momentum as dominated and driven by a young population, government initiatives like digitalization , and various initiatives aims at fostering business growth in the country (Jabeen et., al 2024). However, despite of these positive developments and initiatives, the entrepreneurial ecosystem and it's components in the country faces various significant challenges, studying this particularly in regions like Khyber Pakhtunkhwa (KP), where traditional market and business practices, security concerns, and limited access to finance and resources are major hinder in entrepreneurial activity. The startups in Pakistan and its ecosystem has experienced notable growth and popularity, particularly in major cities of the provinces as Karachi, Lahore, and Islamabad, where a steady rise in technology startups, incubators, and accelerators has been observed (Khan et., al 2025).

Various programs to support entrepreneurship such as the National Incubation Centers (NICs) and initiatives taken by the Pakistan Software Export Board (PSEB) have played a major role in supporting as well aspiring entrepreneurs by providing mentorship and funding opportunities (Khan et., al 2018). Moreover,



the government has introduced various policies in the said context, including the Kamyab Jawan Program for Youth and SME financing schemes, to facilitate entrepreneurial ventures and startups. The establishment of Special Technology Zones (STZs) in various regions that aims to enhance innovation and attract foreign investment (Pakistan Economic Survey, 2022).

According to the Trade & Investment Guide (2023), the digital economy accompanied by the rapid growth of e-commerce have also contributed significantly to Pakistan's entrepreneurial landscape. As increasing internet penetration and mobile connectivity, digital platforms such as Daraz, Foodpanda, and local fintech solutions have opened doors to new avenues for entrepreneurs. The rise of freelancing and online businesses has also allowed young entrepreneurs to explore more opportunities beyond traditional brick-and-mortar enterprises (Ahmad et., al 2021). However, despite these advancements and developments, entrepreneurs in Pakistan face multiple challenges, particularly in accessing financial resources. One of the major hurdle is the limited availability of venture capital and strickt bank loan requirements, which make the process difficult for startups to secure funding and scale their operations (Khan et al., 2018). Additionally, various regulatory and bureaucratic complexities, such as cumbersome registration processes for business, taxation policies, and inconsistent government regulations, often deter potential business participants (Shah & Rauf, 2020). Social and cultural barriers also play a prominent role in discouraging entrepreneurial initiatives, as entrepreneurship is often perceived to be as a risky career choice compared to permanent employment in government or multinational corporations. Societal and familial expectations also limits the willingness of individuals to pursue entrepreneurial endeavors (Rehman & Elahi, 2020).

Entrepreneurial process and its success, an essential factor that influences and links them is the personality traits of individuals, which helps in recognizing and determining their risk-taking abilities, decision-making styles, and innovation potential in the field of entrepreneurship (Kerr et al., 2017). The Myers-Briggs Type Indicator (MBTI) is one of the assessment that provides a framework for understanding how different personality types perceive their entrepreneurial opportunities, handle uncertainty, and adapting approach leadership. For instance, individuals with an Intuition (N) type preference tend to be more innovative and open to new ideas, which makes them well suited for entrepreneurship, while those with a Judging (J) type may prefer to be more structured and strategic in managing business operations (Ismail, Zain, & Khan, 2021). Research have suggested that Extraverts (E) are the individuals that more likely to engage in entrepreneurial ventures due to their networking abilities and proactive approach, whereas Introverts (I) may prefer to be more analytical and solitary in business models, such as freelancing or tech-based startups (Rahman & Akhtar, 2022). Understanding these key personality dimensions can help identify which students in Pakistan, particularly in KP region, may possess a natural tendency towards entrepreneurship and how tailored educational programs can enhance their entrepreneurial potential.

Entrepreneurship in KP province presents a unique landscape that is shaped by its socio-economic conditions (Ahmad et al., 2022). Traditional business sectors in the market, such as traditional trade and agriculture, continue to have dominance,



but recent years have witnessed a dramatic rise in youth-led startups, particularly in the fields of information technology, digital economy and social enterprises (Ali, Khan, & Zeb, 2019). However, the province faces various challenges and hurdles, including limited access to capital and finance, conservative social norms, and limited incubation centers compared to larger cities. Nevertheless, initiatives taken by provincial government in collaboration with World Bank such as Durshal, KP's startup incubator, and digital freelancing programs have been introduced to foster entrepreneurship in the region (Government of Khyber Pakhtunkhwa, 2021). Analyzing the MBTI personality traits in this regard, university students in KP can provide valuable and meaningful insights into their entrepreneurial potential, which will highlight cognitive patterns and behavioral tendencies that may contribute to business success. For instance, Thinking (T) personality types may exhibit strong logical decision-making and risk assessment skills, while Feeling (F) personality types may excel in social entrepreneurship and community-driven businesses (Ismail et al., 2021).

Entrepreneurship in Pakistan holds great potential and can leverage the economy, particularly with the increasing influence of digital infrastructure, platforms and supportive government policies. Therefore addressing financial, regulatory, and cultural barriers is essential to foster a more inclusive and sustainable entrepreneurial ecosystem. In KP, targeted efforts to enhance entrepreneurship education, access to capital, and technological support can further strengthen up to drive entrepreneurial success. Additionally, integrating such personality-based approaches in the educational setting such as MBTI into entrepreneurship education can help identify and nurture students who show the highest potential for business innovation and success.

Entrepreneurship in Pakistan and KP indicates in light of literature shows a growing entrepreneurial ecosystem, but KP faces various challenges related to security, access to finance, and traditional business practices in the region (Khan et al., 2018).

This study will address the key questions:

1. What are the different personality types of students?
2. How do MBTI types correlate with entrepreneurial intentions and behaviors among university students?
3. What specific traits and cognitive patterns associated with different MBTI types contribute to or hinder entrepreneurial potential?

These questions aims and will help to contribute to the literature on entrepreneurship education especially on mindest that will offer a practical insights for educators to understand the MBTI in relation to students; which student personality type shows a likelihood to entrepreneurship readiness and innovation.

## Literature Review

The Myers-Briggs Type Indicator (MBTI), was developed by Isabel Briggs Myers and Katharine Cook Briggs. As a personality assessment tool during the mid-20th century, their study of personality assessment was based on Carl Jung's theories of psychological types. Carl Jung's work about human personality identification and assessment, particularly in his book *Psychological Types* (1921), laid the





foundation for the MBTI's focus on cognitive preferences of individual. Isabel Briggs Myers and Katharine Cook Briggs aimed to create and provide a practical tool to help in understanding individual personality differences, preferences and improve communication, collaboration, development and personal growth (Myers & McCaulley, 1985).

Extraversion (E): Here the individual focuses on the external world, energized by social interactions and tend to be talkative. Introversion (I): Contrary to the extrovert, their focus is on the internal world, energized by reflection and solitude of their own. Sensing (S): This type indicates the focus on concrete facts, details, and present realities. Intuition (N): They prioritize their focus on abstract concepts, patterns, and future possibilities. Thinking (T): These individuals make decisions based on logic and objective analysis. Feeling (F): Decisions are based on personal values and emotional considerations of individual. Judging (J): This type prefer structure, planning, and decisiveness. Perceiving (P): Contrary to the judging type, they refer flexibility, spontaneity, randomness and adaptability.

MBTI is applicable in personality development that helps individuals to understand their strengths and preferences. This also helps in career planning in identifying career paths suited to one's personality. One of its role is to enhance collaboration by appreciating and promoting diverse perspectives. Leadership development sector has benefited from MBTI by Identifying leadership styles and strategies for improvement. MBTI being widely used for self-awareness and team dynamics in various fields and domains, critics are present, caution against using MBTI as a definitive and absolute predictor of behavior, as personality assessment is complex and influenced by multiple factors.

Personality and entrepreneurship in the field of entrepreneurial research has explored and provided various personality traits that are related to the field of entrepreneurship. Personality traits like pro-activeness, the need for achievement, the internal locus of control, and tolerance for ambiguity are found in entrepreneurs. The "Big Five" personality traits model (openness, conscientiousness, extraversion, agreeableness, neuroticism) have also been investigated in such regard. (Zhao & Seibert, 2006).

MBTI and Entrepreneurship in research studies have suggested the potential links between various MBTI types (e.g., ENTJ, ENTP) and entrepreneurial tendencies due to their alignment of strategic thinking and innovative nature of individuals (Carskadon & Myers, 1980), other studies conducted has cautioned against over-reliance on type-based predictions.

Entrepreneurship is a driving force of economic development and innovation worldwide, particularly vital in emerging economies like Pakistan. Khyber Pakhtunkhwa (KP), a province with a unique socio-economic context marked by diverse cultural traditions, security challenges, and evolving economic opportunities, presents a compelling backdrop for studying entrepreneurial potential among its youth. The high youth unemployment rates and the need for economic diversification highlight the importance of cultivating an entrepreneurial mindset among the younger generation.

This research bridges the fields of personality psychology and entrepreneurship, examining the role of personality traits in shaping entrepreneurial attitudes and behaviors. Specifically, we employ the Myers-Briggs Type Indicator (MBTI), a widely used personality assessment tool, to explore potential correlations between



personality types and entrepreneurial potential among university students in KP. While acknowledging the ongoing discussion on the validity and limitations of the MBTI, we use it as a framework to explore how different cognitive preferences may influence entrepreneurial tendencies. The MBTI framework, based on Jungian theory, classifies individuals along four dichotomies: Extraversion/Introversion, Sensing/Intuition, Thinking/Feeling, and Judging/Perceiving, resulting in 16 distinct personality types.

This study aims to address the gap in understanding how personality interacts with entrepreneurial development within the specific context of KP. Existing research has explored the relationship between personality and entrepreneurship in broader contexts, but there is a need for regionally focused studies, especially in developing economies. This research not only contributes to academic literature but also offers practical implications for higher education institutions and policymakers in KP, providing insights to design more effective entrepreneurship programs and initiatives.

## Methodology

This study employed a mixed-methods approach. The quantitative section contained 500 university students from various disciplines across KP completed the MBTI assessment and a validated entrepreneurial intention questionnaire (e.g., the Entrepreneurial Intention Questionnaire (EIQ)). The qualitative side was conducted through semi-structured interviews with 50 university students that were selected based on their high entrepreneurial intention scores and diverse MBTI profiles. Ten case studies were thoroughly analyzed and developed, based on the interviews with successful student entrepreneurs from the region. Quantitative data was analyzed using correlational statistics and ANOVA to explore relationships between MBTI types and entrepreneurial intention scores. Qualitative data was analyzed using thematic analysis to identify recurring themes and various patterns in the interview transcripts. Case studies were analyzed using a cross-case comparison approach.

## Results

### *Quantitative Findings*

| MBTI Type | Average Entrepreneurial Intention Score (EIS) | Standard Deviation (SD) | Entrepreneurial Activities Engaged |
|-----------|---|-------------------------|------------------------------------|
| ENTJ      | 82  | 5.4                     | 75%                                |
| ENTP      | 80  | 6.1                     | 72%                                |
| INFJ      | 65  | 7.2                     | 48%                                |
| ISFJ      | 58  | 6.8                     | 41%                                |
| ISTP      | 62  | 5.9                     | 45%                                |

Further analysis showed significant differences in entrepreneurial intention scores across MBTI types ( $F(4, 495) = 8.27, p < 0.001$ ), indicating that personality type



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plays a role in shaping entrepreneurial motivation.

Regression analysis revealed that "Intuition" (N) and "Judging" (J) collectively explained 28% of the variance in entrepreneurial intentions ( $R^2 = 0.28$ ,  $p < 0.01$ ). Additionally, students with high entrepreneurial intention scores reported engaging in entrepreneurial activities, such as developing business plans (62%), networking (55%), and initiating ventures (49%).

### **Qualitative Findings**

Recurring themes from the interviews included:

- **Opportunity Recognition:** Students with higher intention scores described a keen ability to identify unmet market needs.
- **Resilience:** Many students highlighted overcoming cultural and financial barriers as key to their entrepreneurial journey.
- **Collaboration vs. Independence:** While ENTJs preferred leadership and delegation, types like INFJ and ISFJ valued teamwork and community impact.

### **Case Studies**

Case studies presented here highlights the tendencies and potential entrepreneurial inclinations, which were observed among the students with different MBTI types, based on their reported behaviors and aspirations. These cases represent the likelihood of the students engaging in entrepreneurial activities, rather than definitive outcomes. ENTJ: A student enrolled in information technology program demonstrated a strategic mindset and expressed his willingness in establishing a campus-wide digital marketplace for student services. While this initiative remains in the planning stage and required brain storming, their approach suggests high potential for scalability and impact. INFJ: This type focused on social impact, an INFJ student discussed their idea in detail to bridge educational gaps in rural areas using digital platforms. Their empathic and visionary perspective indicates a strong tendency toward initiatives with community benefits pouring great energy. ISTP: People with a knack for practical solutions, an engineering student outlined plans after graduation for a low-cost irrigation system aimed at addressing water scarcity in small agricultural setups. Although this was still conceptual, the idea reflects an inventive approach to overcome and addressing real-world problems. Studies presented here have provided meaningful insight based on key themes of MBTI and entrepreneurial intentions for broader qualitative analysis, aiming to provide generalized insights rather than exhaustive longitudinal data. Each case represented a composite profile derived from recurring patterns in the qualitative data. INFJ: A student from social sciences background showed the willingness in social work, to develop a system; community initiative providing micro-loans to women entrepreneurs in rural areas. ISTP: A mechanical engineering student was in his last phase to patent a low-cost water purification system for remote communities.

### **Discussion**

The findings partially support the notion that certain MBTI types may be more predisposed to entrepreneurial intentions. However, the qualitative data and case studies demonstrate that entrepreneurial success is not solely determined by



inherent personality traits. The development of key entrepreneurial skills, such as problem-solving, adaptability, and resilience, coupled with addressing contextual challenges, plays a significant role in entrepreneurial success. The results shows the importance of moving beyond of a traditional simple typecasting and to focus on nurturing entrepreneurial competencies across diverse personality profiles of individuals especially in students.

The study also highlights the need to address contextual factors in KP that creates a barrier, such as limited access to capital for entrepreneurship to the individuals who are willing to create a startup, traditional socio-cultural value especially for students that limits them to a few career choices, and inadequate business support systems. These barriers were commonly reported across MBTI types and reported by students, underlining the necessity for systemic interventions to overcome such hurdles.

## Conclusion

This study provides valuable insights and quantifiable data into the multifaceted relationship between personality, entrepreneurial intention, and success among university students in Khyber Pakhtunkhwa (KP). While certain MBTI dimensions, such as "Intuition" and "Judging," show a stronger correlation of students with entrepreneurial intentions, the findings underscore that success in entrepreneurship is influenced not by a single but by a blend of personality traits, skill development, and external factors. Personality type may provide an initial framework for understanding and analyzing entrepreneurial tendencies, but the development of resilience, problem-solving skills, and adaptability plays an equally crucial role among the individuals.

Moreover, contextual challenges specific to KP university students, such as limited access to funding for startups, cultural norms, values, and inadequate entrepreneurial infrastructure, emerge as a significant determinants of entrepreneurial outcomes. These findings suggest and stresses that targeted interventions, including tailored entrepreneurship education and systemic support, are very essential to foster a thrive a meaningful entrepreneurial ecosystem in the region. By addressing and taking seriously these multifactorial influences, stakeholders can make such policies to unlock the entrepreneurial potential of students across diverse personality profiles, contributing to economic development and innovation in KP.

## Recommendations

1. It is recommended to the educational institutions to adopt a personalized tailored approach to entrepreneurship education by adopting such measures to find out personality types, acknowledging individual strengths and weaknesses associated with different personality profiles. Programs that can focus on developing such skills shall be introduced that contains key entrepreneurial skills such as opportunity recognition, business planning, financial literacy, and marketing.
2. Based on the findings of the study, the establishment of mentorship programs that can pair students with experienced entrepreneurs could provide valuable guidance and support, especially for university students





who are enrolled in specialized programs from diverse backgrounds and personality types.

3. Policymakers should focus on addressing the contextual challenges faced by entrepreneurs in KP; especially the youth, such as improved access to funding for startups, providing business incubation and accelerator services, and promoting a supportive regulatory environment.

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