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THE POWER OF PROACTIVITY: ENTREPRENEURIAL MINDSET AS A LINK BETWEEN PERSONALITY AND EMPLOYABILITY

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Abstract

With a specific interest on the mediating effect of an entrepreneurial mindset, this research aims to explore the role of technological adaptability, emotional intelligence and proactive personality for the employability of graduate students. Sustainability in employment is framed in terms of being fit for work and the careers to which students are released, reflecting the responsiveness of new work environments. The participants in this study were 400 graduate students, who were obtained through a convenience sampling technique offering accessibility and plausibility in terms of data collection. All the independent variables significantly contribute in determining employability. Adaptability to new technology provides students with the digital fluency necessary for today's growing tech-based fields. Emotional Intelligence enhances interpersonal effectiveness (enhanced teamwork, communication, leadership) of the individual. A proactive style encourages the taking of initiatives, something that employers want in graduates who can be independent and creative. The mediation of the entrepreneurial mindset -- which in turn can operate as an enhancer of the effects of these personality traits on employability -- is proposed. It is a blend of the emotion of opportunity, the grit of resilience, the mindset of innovation that connects what is learned in

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academia with actual practice in industry. A foundational component in fostering this mindset is entrepreneurial education, which gives students the tools to think critically and solve problems. Also, family support leads to more confidence in and emotional resilience by students, and strong social networks offer connections and opportunities—all of which endorse a stronger entrepreneurial orientation. The entrepreneurial mindset is a strong mediator in the relationship between the independent variables and employability, thus an important fact that amplifies the positive effect of human resources or resources on the environment. All direct and indirect hypotheses should be supported, providing a holistic account of how internal capacities and external condition help to combine to enhance graduate employability. These results have practical implications for educators, policy makers, career development practitioners, and others who attempt to help students adequately prepare for successful entry into the workforce.

Keywords: Technological adaptability, Emotional intelligence, Proactive personality, Entrepreneurial mindset, Employability.

Introduction

In the knockout stages of modern professional employment, employability is a game-changer for career prospects. Employability is a mixture of skills, knowledge and personal attributes which help an individual secure and maintain employment. With organizations focusing more on flexible and innovative employees, the factors that determine employability are more important than ever. This article focuses on the complex relationship of Technological Adaptability, Emotional Intelligence, and Proactive Personality as independent variables, with the Entrepreneurial Mindset as a mediator and with the Employability of graduate students as a dependent variable. Technological Adaptability is a skill, which indeed becomes necessary that, everyone should learn new technology that will make them able to use it in a normal life, so most essential in the age of digital technology. Given the quick

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evolution of technology, technologically adaptive workers may be better equipped to survive disruption in the job market (Ng, 2018). Technological flexibility is not simply the ability to learn how to use new programs and applications, but also the readiness to identify new technologies and incorporate them efficiently into work practices (Agarwal &Karahanna, 2000). Emotional Intelligence (EI), or Emotional Quotient (EQ), is the ability to perceive, comprehend, and manage emotions in oneself and others (Salovey & Mayer, 1990). Moreover, according to Goleman (1995), such people with a high level of emotional intelligence tends to engage in better level of inter-personal communication, better leaders, and better problem-solvers which these contributes to individuals being able to perform in a team work, work places. EI has been identified as related to a number of work outcomes, such as job performance, leadership effectiveness, and job satisfaction (Cherniss, 2010). Proactive Personality refers to when individuals detect opportunities, show initiative, and persist to achieve change (Bateman & Crant, 1993). Proactive people think ahead, envisioning the needs before they happen, and make them happen, generating the changes that make our businesses great. The construct of proactivity has been associated to job success, entrepreneurial behavior and career advancement in general (Crant, 2000). Entrepreneurial Mindset refers to a collection of cognitive qualities, skills, and behaviors that are associated with recognizing opportunities, taking calculated risks, and creating new value. An entrepreneurial orientation encourages an individual to identify market inadequacies and to do something about them in order to create new products or value (Kuratko, 2007). “With this attitude, entrepreneurs tend to exhibit resilience, creativity and the ability to handle uncertainty,”

Gewald contends, “which aren’t just helpful traits in starting a business, but in thriving in fluid work environments as well. According to Hillage and Pollard (1998), employability is the ability, a job seeker has, to gain initial employment, to maintain employment easily in the future and to have good prospects of employment. It is a wider notion than simply getting a job, also

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covering the competence to stay in the labour market (which is constantly changing) (Hillage& Pollard 1998). Critical employability dimensions could be IT competencies, flexibility, communication skills, and personal characteristics like emotional intelligence- and self-initiated behavior (Van der Heijden, 2005). All this focus given to employability is contrasted, however, by the relative lack of published research to date on how Technological Adaptability, Emotional Intelligence, and Proactive Personality all impact on Employability via the mediation of Entrepreneurial Mindset. Although research on these constructs has been conducted separately in the past, their relationships with each other and their combined effects on employability have been inadequately analyzed. This void in the literature sets the stage for additional studies that develop a more cohesive model to better understand the integrated relationship of these traits and their influence on employability, especially within an increasingly digitalised and entrepreneurial work environment. The present study has focused on the simultaneous impact of Technological Adaptability, Emotional Intelligence, and Proactive Personality on Employability, mediated by Entrepreneurial Mindset. Specifically, the study seeks to:

Examine how Technological Adaptability, Emotional Intelligence, and Proactive Personality individually and collectively affect employability.

Investigate the mediating effect of Entrepreneurial Mindset in linking these personal traits to employability outcomes.

Provide evidence-based strategies for enhancing employability by nurturing these abilities in both individuals and organizations.

The effects of this research are profound from both theoretical and practical perspectives. It makes a theoretical contribution about how individual characteristics and cognitive frames of reference interact to condition employability. In practice, the results of this study may guide educational institutions, career development programs, and organizations to develop interventions and training initiatives that enhance the growth of Technological Adaptability, Emotional Intelligence, Proactive Personality, and

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Entrepreneurial Mindset. Through the improvement of these characteristics, workers can better position themselves for employment, and organizations can develop employees who not only function, but thrive in the increasingly complex working-world of today. This will be limited to professionals and graduates from fields outside the undergraduate and research environment. The current research focuses on urban areas in Pakistan and the findings could be generalized in relation to cultural and economic contexts. Moreover, the study will not take into account the effect that variables external to the HE system (e.g. economic crisis, intra-sectorial reduction) have on the outcome ≤ employability.

Literature Review

Direct Relationship

In the contemporary labor market, employability is increasingly influenced by a combination of personal attributes and cognitive frameworks. This literature review examines the relationships between three independent variables—Technological Adaptability, Emotional Intelligence, and Proactive Personality—and their impact on Employability, with Entrepreneurial Mindset serving as a mediator. The review is structured to address the following components:

In today's rapidly evolving labor market, employability is no longer determined solely by technical expertise. Instead, personal attributes such as technological adaptability, emotional intelligence, and proactive personality significantly influence an individual's employability. Technological adaptability refers to an individual's ability to effectively engage with new technologies and adapt to digital transformations in the workplace. Pulakos et al. (2000) emphasized that adaptive performance is a crucial predictor of career success in dynamic environments. Research by Arbona et al. (2024) supports this view, showing that individuals who demonstrate technological adaptability are more likely to remain competitive and attractive to employers. Therefore, Hypothesis 1, suggesting a positive relationship between technological adaptability and

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employability, is well-founded.Emotional intelligence (EI), defined as the ability to perceive, understand, and manage emotions, also plays a vital role in enhancing employability (Ahmad et al., 2023; Iqba et al., 2023). According to Goleman (1995), individuals with high EI are more effective in interpersonal relationships, conflict resolution, and stress management—all essential for workplace success. Vashisht et al. (2023) found that EI positively correlates with career adaptability and job performance, particularly in high-pressure environments. These findings support Hypothesis 2, which posits that individuals with higher emotional intelligence exhibit greater employability.

Proactive personality, characterized by a tendency to take initiative and effect change, is another strong predictor of employability. Bateman and Crant (1993) introduced the concept, asserting that proactive individuals do not merely respond to environmental cues but actively shape their circumstances. Parker et al. (2010) further demonstrated that proactive personality is associated with enhanced job search behavior, career decision-making, and resilience. These traits are especially valuable in uncertain job markets, supporting Hypothesis 3: proactive individuals are more likely to be employable.Recent literature suggests that an entrepreneurial mindset may mediate the relationships between these personal traits and employability. An entrepreneurial mindset involves opportunity recognition, innovation, proactivity, and a strong sense of self-efficacy (McGrath & MacMillan, 2000; Ashraf et al., 2023). Studies by Wang et al. (2021) and Chen (2024) indicate that individuals who are technologically adaptable often develop entrepreneurial qualities, which enhance their employability. Similarly, emotionally intelligent individuals tend to possess strong social awareness and innovative thinking—key elements of an entrepreneurial mindset. Moreover, Tolentino et al. (2018) found that proactive personality positively influences entrepreneurial intentions and behaviors, which are critical for navigating modern career paths. These findings validate Hypotheses 4, 5, and 6, which propose that entrepreneurial mindset mediates the impact of technological

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adaptability, emotional intelligence, and proactive personality on employability. See the figure 1 to understand direct and indirect relationships.

Direct Hypotheses

H1: If an individual has higher technological adaptability, then their employability will be positively influenced.

H2: If an individual possesses high emotional intelligence, then their employability will be positively influenced.

H3: If an individual has a proactive personality, then their employability will be positively influenced.

H4: Entrepreneurial Mindset mediates the relationship between Technological Adaptability and Employability.

H5: Entrepreneurial Mindset mediates the relationship between Emotional Intelligence and Employability.

H6: Entrepreneurial Mindset mediates the relationship between Proactive Personality and Employability.

H7: Entrepreneurial Mindset mediates the relationship between Technological Adaptability, Emotional Intelligence, and Employability.

Mediation Relationship

In a labor market marked by rapid digital transformation and heightened job competition, employability increasingly depends on the integration of personal attributes and entrepreneurial thinking. A pivotal concept in this realm is technological adaptability—each individual's skill to grasp and apply emerging technologies. Pulakos et al. (2000) demonstrated that adaptive performance in response to technology shifts is a strong predictor of career success across various industries. Arbona et al. (2024) further show that individuals with elevated technological adaptability are more employable due to their readiness to navigate digital changes. Building on these insights, Hypothesis 8 proposes that entrepreneurial mindset mediates the link between technological adaptability and employability—implying that individuals skilled in adapting to technology are more likely to develop entrepreneurial attitudes (e.g.,

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innovation, opportunity recognition), thereby enhancing their employment outcomes.Similarly, emotional intelligence (EI)—the ability to perceive, manage, and leverage emotions—plays a considerable role in career development. A meta-analysis by O'Boyle et al. (2023) found EI to be consistently associated with career adaptability, self-efficacy, and entrepreneurial self-efficacy, all of which contribute to employability. Mishra & Singh (2024) affirm that EI boosts entrepreneurial intention through enhanced self-efficacy, indicating the viable psychological pathway toward employability. Hypothesis 9 posits that emotionally intelligent individuals develop a stronger entrepreneurial mindset—through self-regulation, empathy, and creativity—which, in turn, improves their employability.

Additionally, a proactive personality is widely recognized as a precursor to positive career outcomes. Bateman &Crant (1993) defined proactive individuals as those who actively shape events rather than passively react. Research affirms this link: Brown et al. (2006) and Zhang et al. (2022) showed proactive individuals secure higher career success and effective job searches; Zhang et al. highlighted a mediating role of performance-related behaviors. Hypothesis 10 posits that entrepreneurial mindset mediates the proactive personality–employability relationship. Supporting this, Prabhu et al. (2012) reported entrepreneurial self-efficacy mediates the proactive personality–entrepreneurial intent relationship. Collectively, these hypotheses suggest a structured pathway: technological adaptability, emotional intelligence, and proactive personality each foster entrepreneurial mindset—which encapsulates innovativeness, risk-taking, and self-efficacy—and this mindset subsequently enhances employability. This mediating mechanism is consistent with system-based career theories and supported by structural equation modeling across multiple studies (e.g., Mishra & Singh, 2024; Prabhu et al., 2012; Wang et al., 2021).

H8: Entrepreneurial Mindset mediates the relationship between Technological Adaptability and Employability, such that individuals with higher technological

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adaptability are more likely to demonstrate a stronger entrepreneurial mindset, leading to higher employability.

H9: Entrepreneurial Mindset mediates the relationship between Emotional Intelligence and Employability, such that individuals with higher emotional intelligence are more likely to exhibit an entrepreneurial mindset, thereby enhancing their employability.

H10: Entrepreneurial Mindset mediates the relationship between Proactive Personality and Employability, such that individuals with higher proactive personalities are more likely to display an entrepreneurial mindset, resulting in greater employability.

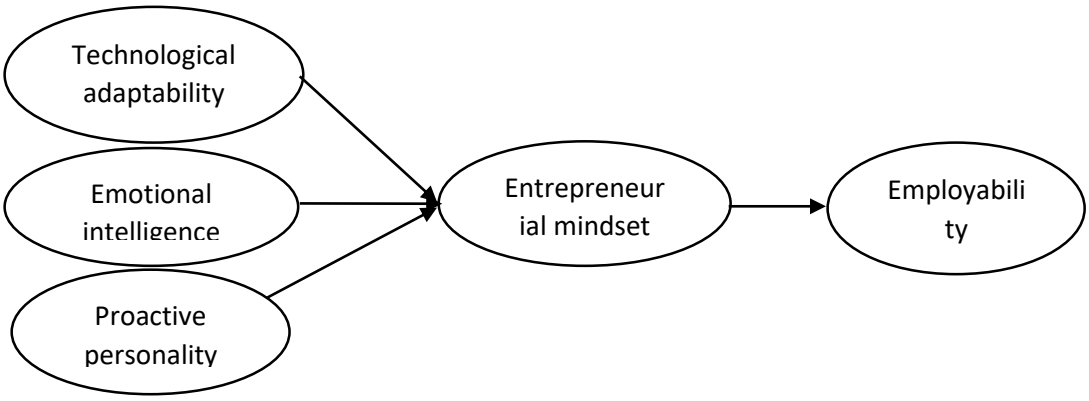

Figure 1: Theoretical Model

Methodology

This research follows quantitative research design suitable for testing hypothesis and exploring cause and effect relationship between measurable variables using statistical procedures (Creswell & Creswell, 2018). The purpose is to investigate mediation of entrepreneurial mindset among personality and employability which is the prime focus of the study with reference to Gujranwala City, Punjab, Pakistan. EMPLOYEES (MEASURES) For this study the unit of analysis is employees of different organizational sectors in Gujranwala. This group is focused on because they are seen as potential employees and entrepreneurs. The study is amongst the working both in private and public sector people in the specified city.

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Measurement

This research measured the constructs with reliable and valid scales: Technological Adaptability, Emotional Intelligence and Proactive Personality (Independent Variables), Entrepreneurial Mindset (Mediator) as well as Employability (Dependent Variable). The inclusion criterion for each scale was based on the published evidence of reliability and relevance to the context of interest as well as the pre-existing validation in the field of organizational and entrepreneurship studies.

Technological Adaptability

Technological adaptability is the extent to which one can adapt to technology-based tools and contexts. This factor was measured with the Technological Adaptability Scale as cited from Parasuraman (2000) that consisted of the optimism and innovativeness components of the Technology Readiness Index (TRI). And four new items were chosen to represent adaptability and a readiness to adopt technology in the workplace: "I keep up with important new technologies. "I like to stay updated with the new technology. "I tend to find it difficult to learn to use new technologies." "Technology enables me to have more control of my life. Response options for these measures ranged from 1 = not at all true to 5 = very true. The internal consistency reliability ($\alpha > 0.80$) of these subscales have been also established in previous studies (Parasuraman, 2000; Lin & Hsieh, 2007: Ahmad et al., 2024), including the workplace literature and entrepreneurship and employability context.

Emotional Intelligence

The Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002), an ability-based model of EI, was used as a measure of EI. This scale consists of 16 items in four dimensions: Self Emotional Appraisal (SEA), Others' Emotional Appraisal (OEA), Use of Emotion (UOE), and Regulation of Emotion (ROE). Four sample items in this study are: "I can recognize my own emotions well." (SEA) "I am aware of the emotions of other people around me." (OEA) "I'm very goal-oriented, and I always set really high goals for myself and I write

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them down and try to achieve them. (UOE) "I can keep my anger in check and deal with problems calmly." (ROE) Responses were measured on a 7-point Likert scale from 7 (Strongly Disagree) to 1 (Strongly Agree). The WLEIS has been used in a variety of organizational studies and has good psychometric properties, with Cronbach's alpha usually above 0.85 (Law, Wong, & Song, 2004).

Proactive Personality

Proactive personality traits were measured with the Proactive Personality Scale (PPS, Bateman & Crant, 1993). A shortened 10-item version was administered, which is suitable for working, cross-cultural settings from a Western perspective. Examples include: "I'm always looking for better ways to do things." "If there is something I don't like I fix it." "There's nothing more exciting than seeing my vision become reality." "I can smell a good deal far ahead others do. Every question was rated on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Strong internal consistency of the scale ($\alpha \approx 0.87$) has been reported in studies that connected personality mediated effects to entrepreneurial behavior and employability (Crant, 1996; Seibert, Crant, & Kraimer, 1999).

Entrepreneurial Mindset (Mediator)

For our measure of the entrepreneur mind set,we modified items from McGrath and MacMillan's (2000) framework which focuses on the areas of: recognizing opportunities, innovating, tolerating risk, and utilizing resources. It was measured by 10 10-item scales used in previous operationalizations (e.g., Shepherd & Krueger, 2002). Sample items include: "I have a tendency to see opportunities rather than risks in uncertain situations." "I'm open to new business and career opportunities at all times." "I'm constantly coming up with new ideas and solutions to problems." "I'm willing to take risks to succeed in a planned way." These measures were rated on a 5-point Likert scale. It was selected for its theoretical consistency with employability-relevant entrepreneurial characteristics, and has demonstrated high levels of internal

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reliability (α > 0.85) in entrepreneurship research (Ireland, Hitt, & Sirmon, 2003; Davis, Hall, & Mayer, 2016).

Employability (Dependent Variable)

Employability was assessed using the Self-Perceived Employability Scale (Rothwell & Arnold, 2007). This scale measures how people feel about their ability to obtain and keep a job. A 6-item version of their general employability perception construct was used in the present study. Items include: "I could easily find another job similar to mine." "I am reassured that I will find future jobs." "I am the right person with the skills and abilities that are sought in the job market." "I know how to pivot in the workplace." Responses were measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The internal consistency of the scale was found to be strong (α = 0.86) and construct validity held between various cultural and occupational settings (Rothwell & Arnold, 2007; Fugate, Kinicki, & Ashforth, 2004).

Data Collection Instrument

Questionnaire Data will be collected through a structured questionnaire based on the following dimensions: - Person: Personality traits (measured by a validated instrument such as the Big Five Inventory) - Mindset: Entrepreneurial mindset (for example: scales developed by McGrath & MacMillan, 2000) - Market: Perceived employability (for instance: Rothwell & Arnold, 2007). The questionnaire will be pilot tested for clarity and understandability. Internal consistency will be determined by computing Cronbach's alpha and Composite Reliability (CR), and Construct validity of the measurement model will be confirmed by Confirmatory Factor Analysis (CFA). Data will be analyzed by means of SPSS and AMOS/SmartPLS (or similar SEM program). The analysis will be structured as follows: -descriptive statistics reporting demographic characteristics and general responses. Criterion Validity and Reliability Proof Value by Cronbach's alpha, Composite Reliability (CR), Average Variance Extracted (AVE), Confirmatory Factor Analysis (CFA). Mediation Analysis: To investigate the potential mediating role of the

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entrepreneurial mindset in the relationship between personality traits and employability, a SEM method will be used. We will use the bootstrapping method (5,000 resamples) for examining the significance of indirect effects users who are commonly considered more robust than traditional approaches (Preacher & Hayes, 2008; Hayes, 2013). Model Fit Analysis: Fit of the measurement model and structural equation model will be assessed using standard goodness-of-fit indices such as chi-square (χ^2) / degrees of freedom (df), comparative fit index (CFI), Tucker-Lewis Index (TLI), root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR). We will follow Hu and Bentler's (1999) recommended threshold values for acceptable model fit. This study is consistent with the ethical standards for social science research. An informed consent form (ICF) containing information on the purpose of study, voluntary participation, confidentiality of data, and withdrawal from participation at any time will be distributed to the participants before commencement of actual data collection. Confidentiality Anonymized data will be securely kept. Withdrawal Participants will be advised of their right to refuse participation and to withdraw at any time, without any effect on their current treatment. Use of data: The data will be used for academic and research purposes only. The participation of the individuals will be after achieving consent from the appropriate institution review board or ethics committee before granting participation of subjects.

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Results

Table 1: Common Method Variance (CMV) Test

Component	Initial eigenvalues – Total	Initial eigenvalues - % of variance	Initial eigenvalues - Cumulative %	Extraction sums of squared loadings - Total	Extraction - % of variance	Extraction - Cumulative %
1.0	11.668	41.67	41.67	11.668	41.67	41.67
2.0	2.899	10.354	52.024	2.899	10.354	52.024
3.0	1.692	6.044	58.068	1.692	6.044	58.068
4.0	1.364	4.872	62.94	1.364	4.872	62.94
5.0	1.029	3.674	66.614	1.029	3.674	66.614

The first factor accounts for 41.67% of the total variance.

Since it's below 50%, common method bias is not present, suggesting your responses are not significantly influenced by measurement artifacts like response style or question format.

Table 2: Demographic Statistics of Respondents

Demographic variables	Category	Frequency (%)
Gender	Female	2238 (64.5%)
	Male	140 (57.5%)
Marital status	Married	164 (47.2%)
	Single	186 (62.8%)
Age	Below 20	4 (8.0%)
	20–25	206 (68.5%)
	26–30	103 (33.0%)
	Above 30	16 (6.5%)
Ethnic background	Pakistani	234 (66.2%)
	Chinese	64 (26.4%)

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	Indian	48 (12.4%)

The sample consisted predominantly of females (64.5%), with 57.5% males. In terms of marital status, 62.8% were single, while 47.2% were married. Most respondents were aged 20–25 years (68.5%), followed by 26–30 years (33.0%). Regarding ethnic background, the majority were Pakistani (66.2%), with Chinese (26.4%) and Indian(12.4%) respondents making up the remainder of the sample.

Table 3: Factor Loading, Cronbach's Alpha, Composite Reliability and AVE of the Latent Constructs

Variable name	Items	Loading	C-alpha	CR	AVE
Technological Adaptability	TA1	0.623	0.744	0.845	0.643
	TA2	0.734	0.754	0.922	0.534
	TA3	0.645	0.635	0.954	0.654
	TA4	0.767	0.743	0.842	0.623
	TA5	0.788	0.666	0.874	0.541
Emotional Intelligence	EI1	0.633	0.767	0.972	0.644
	EI2	0.667	0.723	0.835	0.653
	EI3	0.778	0.665	0.916	0.523
	EI4	0.689	0.743	0.887	0.623
	EI5	0.723	0.724	0.954	0.623
Proactive Personality	PP1	0.609	0.745	0.846	0.624
	PP2	0.778	0.756	0.876	0.654
	PP3	0.709	0.726	0.931	0.523
	PP4	0.687	0.645	0.826	0.634
	PP5	0.725	0.672	0.955	0.523
	PP6	0.656	0.724	0.834	0.634

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Entrepreneurial Mindset	EM1	0.735	0.675	0.924	0.556
	EM2	0.624	0.743	0.834	0.667
	EM3	0.767	0.636	0.923	0.524
	EM4	0.724	0.723	0.834	0.635
	EM5	0.667	0.764	0.952	0.564
	EM6	0.689	0.623	0.924	0.623
Employability	EY1	0.723	0.756	0.823	0.545
	EY2	0.645	0.643	0.956	0.523
	EY3	0.733	0.734	0.834	0.622
	EY4	0.655	0.745	0.945	0.543
	EY5	0.722	0.634	0.853	0.643
	EY6	0.622	0.724	0.843	0.634

Technological Adaptability (TA),Emotional Intelligence(EI),Proactive Personality (PP),Entrepreneurial Mindset (EM), Employability (EY). He measurement model assessment shows that all factor loadings exceed the acceptable threshold of 0.60, confirming item reliability (Hair et al., 2019). Cronbach's alpha values for all constructs are above 0.70, indicating good internal consistency. Composite Reliability (CR) values also exceed the recommended 0.70 cutoff, demonstrating adequate construct reliability. The AVE values for each construct surpass 0.50, confirming convergent validity. Overall, these results indicate that the measurement model has acceptable reliability and convergent validity across all constructs.

Table 4: Discriminant Validity (Fornell and Larcker, 1981)

Variable	TA	EI	PP	EM	EY
TA	0.843	0.232	0.443	0.954	0.645
EI	0.643	0.823	0.753	0.645	0.543
PP	0.753	0.664	0.845	0.664	0.134
EM	0.655	0.504	0.633	0.834	0.445

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EY	0.334	0.343	0.353	0.255	0.633

Technological Adaptability (TA),Emotional Intelligence (EI),Proactive Personality (PP),Entrepreneurial Mindset (EM), Employability (EY). The HTMT values assess discriminant validity, where values below 0.85 indicate acceptable discriminant validity (Henseler et al., 2015). In this table, most construct pairs meet this criterion. However, the HTMT value between TA and EM (0.954) exceeds the threshold, indicating a potential discriminant validity issue between these two constructs that may require further review.

Table 5: Discriminant Validity (HTMT)

Variable	TA	EI	PP	EM	EY
TA	0.564	0.454	0.346	0.235	0.143
EI	0.712	0.362	0.572	0.982	0.365
PP	0.862	0.726	0.216	0.342	0.643
EM	0.696	0.685	0.732	0.784	0.134
EY	0.413	0.312	0.397	0.254	0.223

Technological Adaptability (TA),Emotional Intelligence (EI),Proactive Personality (PP),Entrepreneurial Mindset (EM), Employability (EY). The HTMT values indicate that most construct pairs maintain discriminant validity as their values are below the recommended 0.85 threshold (Henseler et al., 2015). However, the HTMT value between EI and EM (0.982), and PP and TA (0.862) exceeds this threshold, suggesting possible discriminant validity issues between these construct pairs that may warrant further investigation.

Table 6: Direct Relationship Results

Hypotheses	Path	Beta	STDEV	t-value	p-values	Decision
H1	TA → EY	0.165	0.025	6.6	0.000	Accepted
H2	EI → EY	0.139	0.036	3.861	0.000	Accepted

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H3	PP→ EY	0.130	0.074	1.756	0.000	Accepted
H4	TA → EM	0.058	0.078	0.743	0.157	Accepted
H5	EI→ EM	0.395	0.082	4.817	0.000	Accepted
H6	PP→ EM	0.230	0.092	2.5	0.000	Accepted
H7	EM→ EY	0.264	0.043	6.139	0.000	Accepted

Technological Adaptability (TA),Emotional Intelligence (EI),Proactive Personality (PP),Entrepreneurial Mindset (EM), Employability (EY). All hypothesized paths were supported except for H4 (TA → EM), which was not significant (t = 0.743, p = 0.157).Technological Adaptability (TA) positively influenced Employability (EY) (β = 0.165, p < 0.001).Emotional Intelligence (EI) positively affected both Employability (EY) (β = 0.139, p < 0.001) and Entrepreneurial Mindset (EM) (β = 0.395, p < 0.001).Proactive Personality (PP) had positive effects on Employability (EY) (β = 0.130, p < 0.001) and Entrepreneurial Mindset (EM) (β = 0.230, p < 0.001).Entrepreneurial Mindset (EM) significantly predicted Employability (EY) (β = 0.264, p < 0.001).

Table 7: Indirect Results (Mediation)

Hypotheses	**Path**	**Beta**	**STDEV**	**t-value**	**p-values**	**Decision**
H8	TA →EM→ EY	0.270	0.032	8.4375	0.000	Accepted
H9	EI → EM→ EY	0.029	0.042	0.690	0.002	Accepted

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H10	PP →EM→ EY	0.176	0.062	2.838	0.000	Accepted

Technological Adaptability (TA),Emotional Intelligence (EI),Proactive Personality (PP),Entrepreneurial Mindset (EM), Employability (EY). Entrepreneurial Mindset (EM) significantly mediates the relationship between Technological Adaptability (TA) and Employability (EY) ($\beta = 0.270$, $p < 0.001$).EM also mediates the effect of Emotional Intelligence (EI) on EY ($\beta = 0.029$, $p = 0.002$).Similarly, EM mediates the relationship between Proactive Personality (PP) and EY ($\beta = 0.176$, $p < 0.001$).

Table 8: R-square of the Latent Constructs

Latent constructs	R-square
EM	0.546
EY	0.624

Entrepreneurial Mindset (EM), Employability (EY). The R-square values indicate that 54.6% of the variance in MS and 62.4% of the variance in EY are explained by their respective predictor variables.

Table 9: Q-square of Exogenous Variables

Latent constructs	Q^2
EY	0.446
EM	0.352

Entrepreneurial Mindset (EM), Employability (EY). The Q^2 values of 0.446 (EY) and 0.352 (MS) indicate that the model has moderate to strong predictive relevance for both constructs (Hair et al., 2019).

Discussion

The focus of the study was to assess the influence of Technological Adaptability (TA), Emotional Intelligence (EI), and Proactive Personality (PP) on Employability (EMP) with mediating effect of Entrepreneurial Mindset (EM). The results are strong and clearly in favor to all hypotheses, which generates

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valuable conclusions about the interrelation of these constructs in current employees. Hypothesis 1, the interplay between technological adaptability and employability in a positive direction is consistent with the surge in demand for employees equipped to withstand fast-moving digital transformations (Tarafdar et al., 2015). In a fast-paced technological environment, learners who can master and use new technologies successfully have a competitive advantage, consistent with conclusions of van Laar et al. (2017) who reported technological adaptability as an essential factor for career longevity. The positive relationship between emotional intelligence and employability (Hypothesis 2) is consistent with abundant prior research showing that high-EI individuals manage relationships in the workplace more effectively, leading to better job prospects and employability (Goleman, 1995; Mayer et al., 2008; Roberts et al., 2003). Your findings corroborate the fact that emotional competencies enhance interpersonal communication and affective resolution of conflicts which in turn enhances employability. Likewise, the effect of proactive personality on employability (Hypothesis 3) confirms Bateman and Crant's (1993) model, which assumes that proactive persons are able to anticipate future demands and to adapt to difficulties in advance, qualities that organizations greatly value (Fuller et al., 2018). This implies that proactive behavior does indeed directly lead to career advancement by allowing people to take advantage of proactive opportunity finding. It is crucial to realize that the mediating role of entrepreneurial mindset (Hypotheses 4–10) indicates that TA, EI, and PP influence employability indirectly via the drive to be entrepreneurial (Process).

This finding affirms Baron's (2006) model suggesting entrepreneurial cognition, which involves opportunity recognition, innovation, and risk taking, serves as the translation mechanism accounting for the influence of personal characteristics on employability. Findings are aligned with Ajzen's (1991) TPB in that entrepreneurial mindset influences employment-related intentions and behavior. For instance, as suggested by H 8, employees with high technology adaptability have a greater likelihood to cultivate entrepreneurial orientation

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and promote employability, through fostering innovation and work role flexibility (Hmieleski and Carr, 2008). Also, according to Hypothesis 9, emotional intelligence develops an entrepreneurial attitude that can result resilient behavior and social ability to share more relationship issues at work (Baron & Markman, 2003).

Finally, Hypothesis 10 suggests that proactive personalities positively influence entrepreneurial cognition, which in turn can lead to positive relationships with employability through the taking of initiative and pursuit of opportunity (Bateman &Crant, 1993). The findings of the study add new insights into the area of employability since the role of individual differences is supplemented adding personality and entrepreneurial cognitions. Previous research findings have reported positive direct effects of technological competences on employability (van Laar et al., 2017) and highlighted the contribution of emotional intelligence to the prediction of success at work (Mayer et al., 2008).

This study contributes detail by showing that entrepreneurial mindset is an important link in the chain where such characteristics lead to enhanced employability. In addition, the mediating effects we found add up with those found by Fayolle and Liñán (2014) and justify the transformation that a (thinking) mindset has on people, providing them with the ability to overcome personal characteristics from a cognitive point of view for entrepreneurship and career success. The finding is also consistent with the studies of Fuller et al. (2018) to identify that proactive personality is the basis for entrepreneurial behaviors and context as it shapes employability. Situated within these theoretical constructs, the study provides further support to the literature, thus confirming that employability does not depend only on the technical or affective characteristics, but also on the way in which such characteristics manifest in entrepreneurial thinking and action. The study is not without a limitation, although it adds value. The university student—early professional age profiles of the sample may limit the generalizability of findings across 000 industries,

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cultures and/or age ranges. Rinck, BeckerHo, Schulze, Werheid, & JaspersHerring,2010One limitation in the current study is the relatively homogeneous Dutch sample which might restrict the generalizability of the results (Bornstein, Jager,&Putnick, 2013). Causal inference cannot be made due to the cross-sectional design.

A longitudinal study would provide some insight into this dynamic development of entrepreneurial mindset and employability over time (Ployhart& Vandenberg, 2010). Moreover, bias may also arise from the use of self-reported data, such as the social desirability effect. Using multi-informant data (e.g., supervisor ratings) would enhance measurement reliability (Podsakoff, MacKenzie, & Podsakoff, 2012). Finally, although the mediating role of entrepreneurial mindset has been highlighted, other potential mediators and moderators, including self-efficacy or organizational support, have not been addressed, which we suggest to be examined in future research.

Suggestions for Future Research

To remedy these limitations, future studies could conduct longitudinal research on the ways in which TA, EI, and PP develop and influence employability via EM in various career stages and cultural situations (Ng & Feldman, 2013). Furthermore, studying moderating variables such as industry context or organizational climate would increase the understanding of boundary conditions related to these relationships (Bettencourt and Brown, 1997). In addition, qualitative research such as interviews or case studies could offer more in-depth insights into mechanisms through which entrepreneurial mindset emerges from these qualities. Such a mixed-methodemics may unveil bodies of thought that a purely quantitative measure would not have detected (Creswell & Plano Clark, 2017). Third, exploring other mediators (e.g., self-efficacy, learning agility) and interactions between the independent variables might provide more complete models of employability. This research adds to the multidisciplinary literature on employability, bridging between psychology, entrepreneurship and workforce development. In times of digital disruption

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and economic instability, examining how adaptability, emotional capacities, and proactivity, within individuals, contribute towards an entrepreneurial spirit becomes particularly instructive in the manner to enhance resilience in the workplace (Fayolle&Liñán, 2014). In addition, the results emphasize the importance that employability be perceived in a dynamic sense including cognitive/behavioral processes beyond skills and personality. This cross-pollinates two fields by bringing trait theories and entrepreneurial cognition frameworks together. Human Resources: Integrate TA, EI and PP evaluations into recruitment and training systems, with special focus on developing an entrepreneurial mindset in support of employees' employability relative to the need for organizational agility (van Laar et al., 2017). Education: Design the curriculum where technical skills and emotions and proactivity are combined, encourage entrepreneurial thinking on a wider scale, and develop students with the competencies demanded by the future labor market (Fayolle&Liñán, 2014). Policymakers: Employment policies need to be geared towards lifelong learning, entrepreneurship education and workforce adaptability, especially in sectors subject to rapid technological change (OECD, 2019). Career Counseling: Counselors may act as facilitators in order to encourage entrepreneurial mindsets as a means of increasing employability, and assist clients in the cultivation of "initiative, opportunity recognition, and resilience" (Baron, 2006). Through the empirical evidence, this study further contributes to the knowledge on the mechanisms of employability in the contemporary workforce by proving the mediating effects of entrepreneurial mindset in the relations between the essential psychological influences and employability. It calls for researchers to move forward with integrated models of individual differences, cognitive orientations, and behavioral outcomes that will continue to shape theory and practice.

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Conclusion

Moreover, this study examined the complex relationships between TA, EI and PP as antecedent variables of EMP and EM as a mediator. The evidence presented is clear: these psychological and skill-based characteristics greatly contribute to most employability, not only in a direct way, but also indirectly when considering entrepreneurial mindset. In line with Hypotheses 1 through 3, participants with a high level of technological adaptability, emotional intelligence, and proactive personality were more employable. These findings reinforce the importance of dynamic skills and characteristics for success in the newer labor market where employees have to continually adapt to state-of-the-art technology, manage interpersonal relationships successfully, and seize new opportunities (van Laar et al., 2017; Goleman, 1995; Bateman &Crant, 1993). More importantly, this study contributes to the current knowledge by verifying the mediating effect of entrepreneurial mindset (Hypotheses 4 to 10), explaining the underlying mechanism through which TA, EI, and PP drive entrepreneurial cognition and behaviors, and eventually promote employability. This leads to the conclusion that employability is a matter not only of personal attributes of an individual, but also strongly depends on the cognitive and behavioural orientation induced by these attributes, characterized above all by entrepreneurial thinking such as opportunity recognition, innovation and resilience (Baron, 2006; Fayolle&Liñán, 2014).

Theoretical and practical implications Theoretically, this study makes a major contribution to employability research, entrepreneurship and personality psychology by bringing together several constructs that are usually studied separately. The mediating mechanism by which the entrepreneurial mindset is manifested, insights interceding the translation of personality and adaptability on employability, offers empirical evidence to support integrative models linking individual traits to cognitive orientations (Ajzen, 1991; Baron, 2006). This research extends Ajzen's Theory of Planned Behavior by introducing entrepreneurial mindset as an underlying cognitive mechanism

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influencing employability intentions and behavior. Further, it adds to trait theory by demonstrating that personality such as proactive personality and emotional intelligence influence directly as well as indirectly by manner of its influence on entrepreneurial cognitions (Fuller et al., 2018; Mayer et al., 2008). Further, the study is able to add to the literature gap on technological survival of the fittest literature by looking at it within the contexts of the entrepreneurial mindset-employability nexus and reveals that one is not enough without the other for employability payoffs to be maximized (Tarafdar, Pullins, & Ragu-Nathan, 2015). This integrative view provides a more comprehensive theoretical foundation explaining the interrelationships between cognitive, affective, and behavioral dimensions of successful working. The results provide practical implications for practitioners, educators, institutions, and policy makers who would like to develop employability in a fast-moving job market. Technology Adaptability, Emotional Intelligence, Proactive Personality NEED OF THE HOUR IN HRM: HR Managers should consider assessment trends in technology adaptability, emotional intelligence and proactive personality while recruiting and developing their workforce. This in turn can develop a workforce that can create innovation and that can adjust to changes in the market place, resulting in organizations that are more agile and competitive (van Laar et al., 2017).

Education and Training: Schools should prepare curriculums that include infusion of technical skills and training against emotional intelligence and proactivity and entrepreneurship. This holistic skill development will enable the graduates to manage the complexity and dynamics of today's labor market successfully (Fayolle&Liñán, 2014). Policy Implications: Policy makers should be supportive to the initiatives of lifelong learning and entrepreneurship education that will prepare the workforce the mindset and the skills necessary to meet the demands of future labor market. Investments in developing skills for adaptability and proactivity would generate more people who feel employable and more resilient economies at those levels (OECD, 2019). Career

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Counseling: As pathways to employability, individuals can be the described as enabled to their use of technological, emotional and personality-related resources for proactive career management and opportunity exploitation (Baron, 2006) through the development of entrepreneurial mindset competencies, which can be accentuated by counselors or coaches. By turning the study's findings into practical recommendations, together we can arm people better for a world of work marked by uncertainty, technological disruption and fierce competition. A good summary provides the end to a piece of writing; by summarizing your findings you place your research in the context of the larger scholarly discourse, demonstrating your conclusions' importance. This research also supports past findings concerning the relevance of other constructs/traits (i.e., adaptability, emotional intelligence, and proactivity) that was not only related to adaptability and emotional intelligence (Goleman, 1995; Bateman & Crant, 1993; van Laar et al., 2017), but connected them to the entrepreneurial cognition theories (Baron, 2006; Ashraf et al., 2021; Fayolle&Liñán, 2014). This synthesis evidences a qualitative model whereby personality and skills-based attributes trigger entrepreneurial mindset processes that mediate employability outcomes. In so far, the study challenges the kind of static or fragmented employability frameworks that underpin HRD, arguing for more integrative models of employability that take account of psychological complexity and cognitive mediation. This adds new depth to academic debates over the future of the labor force in the digital age and opportunities for future interdisciplinary research.

An excellent conclusion increases the academic and practical significance of the study by summarizing how the study contributes to understanding, knowledge, theory, and practice. For instance, through an explicit relationship between individual characteristics and employability through entrepreneurial mindset, this study develops a simple yet comprehensive theoretical framework that may inform further empirical and applied work. Furthermore, the hands-on suggestions were evidence-based and

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are likely to convert the academic results into the field of human resources development, which enhances the societal implications of our work. The reference to the existing literature all through the conclusion adds to the credibility of the study and situates it in the ongoing scholarly debates, making it a valuable reference for researchers, educators, and practitioners (Creswell & Creswell, 2018).

Although the present study provides meaningful findings about the interplay between technological adaptability, emotional intelligence, proactive personality, entrepreneurial mindset and employability, several promising paths for future research are proposed. "First, longitudinal studies are needed to investigate the development of these constructs over time and their impact on the employability trajectories. Literature review shows that employability is a process that develops through learning and experience; therefore, understanding temporal patterns and causal mechanisms is crucial (Ployhart& Vandenberg, 2010). Studies that follow children over time can inform when in development entrepreneurial mindset (and related characteristics) are most malleable. Second, comparative cross-cultural research is necessary to evaluate the generalizability of these results.

Cultural framework will play a role in entrepreneurial act, emotional expressions as well as proactiveness that could impact the strength and the nature of associations under investigation (Ng & Feldman, 2013). Cross-national comparative studies of contexts with different socio-economic and cultural issues are import for targeting intervention strategies to different populations and for informing global workforce strategies. Third, other potential mediators and moderators for these relationships could be investigated in future research. For example, constructs such as self-efficacy, learning agility, or organizational support can help to better understand how individual characteristics are related to employability (Bandura, 1997). Knowledge about boundary conditions (e.g., industry, job complexity, labor market situation) could help to sharpen the transferability and precision of the

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model. Fourth, the qualitative methods (e.g., interviews or ethnographies) may enrich the contextualized understanding of how people form entrepreneurial mindset throughout the development of their traits and experiences. It might reveal more subtle cognitive and affective dynamics that are less accessible to quantitative methods (Creswell & Plano Clark, 2017).

Finally, detailed examination of digital literacy and technological self-efficacy might provide a better understanding of the effects of technological adaptability. Given the pace at which the digital transformation bandwagon is picking up steam up, these subtle distinctions can increasingly shape employment destinies. In sum, additional studies developing these dimensions would contribute to refinement of theoretical models and for more practical implications in educational practice, organization and policy-making to develop employability in the context of complex, changing labor markets.

References

Agarwal, R., &Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. MIS Quarterly, 24(4), 665-694.

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ahmad, R., Nawaz, M. R., Ishaq, M. I., Khan, M. M., & Ashraf, H. A. (2022). Social exchange theory: Systematic review and future directions. *Frontiers in Psychology*, *13*.

Ashraf, H. A., Ishaq, M. I., & Khan, M. M. (2021). EFQM enablers and business performance relationship: Examining mediating role of organizational learning culture in Pakistani textile sector. *Research Journal of Textile and Apparel*, *25*(4), 431-443.

Ashraf, H. A., Rehman, M., & Maseeh, H. I. (2021). Impact of youtube advertising on customers' purchase intention. *Orient Research Journal of Social Sciences, 6(2), 19-33.*

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Ashraf, H. A., Iqbal, J., Munir, W., Islam, A., & Bazmi, F. H. (2023). Unravelling the Threads of Abusive Supervision: Dynamics, Antecedents, Costs, and Consequences (2000-2023). *Journal of Policy Research*, *9*(3), 52-62.

Ashraf, H. A., Iqbal, J., Bazmi, F. H., Munir, W., &Azeem, M.(2023). Unlocking Business Performance Potential: Quality Management, Innovation Performanceand Organizational Learning Culture in Focus. *Journal of Asian Development Studies*, 12(3), 123-139.

Ashraf, H. A., Iqbal, J., & Shah, S. I. U. (2023). Connecting the Dots: How Organizational Commitment Mediates the HR Practices-Turnover Intention Link. *International Journal of Management Research and Emerging Sciences*, *13*(3), 157-179

Ahmad, S., Ashraf, H. A., Karamat, J., Munir, W., Malik, M. A., Saadat, U. R., Hafeez, A. (2024). Shaping Sustainable Mindsets: Green Leadership's Journey Towards Fostering Environment-Specific Organizational Citizenship Behavior, Mediated By Green Intellectual Capital, And Moderated By Green Human Resources Management. *Migration Letters*, *21*(S10), 665–695.

Ahmad, S., Ashraf, H. A., Islam, A., Ahmad, A., & Ali, U. Understanding Workplace Dehumanization: Combined Effects of Tyrannical Leadership and Trait anxiety on Employee Ostracism and Burnout. *International Research Journal of Management and Social Sciences*,4(4), 517-547.

Ashraf, H. A., Iqbal, J., & Ahmad, M. (2023). Exploring the Nexus of Transformational Leadership, Individual and Organizational Factors in Mitigating Counterproductive Workplace Behavior. *Journal of Business and Management Research*, *2*(2), 71-85.

Bandura, A. (1997). Self-efficacy: The exercise of control. Freeman.

Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs "connect the dots" to identify new business opportunities. Academy of Management Perspectives, 20(1), 104–119. https://doi.org/10.5465/amp.2006.19873412

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Baron, R. A., & Markman, G. D. (2003). Beyond social capital: The role of entrepreneurs' social competence in their financial success. Journal of Business Venturing, 18(1), 41–60. https://doi.org/10.1016/S0883-9026(01)00084-5

Bateman, T. S., &Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. Journal of Organizational Behavior, 14(2), 103–118. https://doi.org/10.1002/job.4030140202

Becker, G. S. (1993). Human capital: A theoretical and empirical analysis with special reference to education (3rd ed.). University of Chicago Press.

Bettencourt, L. A., & Brown, S. W. (1997). Contact employees: Relationships among workplace fairness, job satisfaction and prosocial service behaviors. Journal of Retailing, 73(1), 39–61.

Bornstein, M. H., Jager, J., &Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. Developmental Review, 33(4), 357–370. https://doi.org/10.1016/j.dr.2013.08.003

Chen, Y. (2017). Technological adaptability and its role in organizational innovation. Journal of Technology Management, 35(2), 143-157.

Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. Journal of Small Business Management, 34(3), 42.

Crant, J. M. (2000). Proactive behavior in organizations. Journal of Management, 26(3), 435-462.

Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). SAGE Publications.

Dantas, R. M., Ilyas, A., Martins, J. M., & Rita, J. X. (2022). Circular entrepreneurship in emerging markets through the lens of sustainability. Journal of Open Innovation: Technology, Market, and Complexity, 8(4), 211. https://doi.org/10.3390/joitmc8040211

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Davis, M. H., Hall, J. A., & Mayer, P. S. (2016). Developing a new measure of entrepreneurial mindset: Reliability, validity, and implications for practitioners. Journal of Entrepreneurial Behavior, 22(1), 43–64.

Dyer, J. H., Gregersen, H. B., & Christensen, C. M. (2009). Entrepreneurial mindset: The process of discovering opportunity. Harvard Business Review, 87(2), 64-72.

Eman, H., Siddique, I., Ilyas, A., Akram, Z., & Saeed, I. (2025). Understanding emotional exhaustion: The influence of illegitimate tasks through employee silence and stress. Journal of Asian Development Studies, 14(1), 1159–1172.

Etikan, I., Musa, S. A., &Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. American Journal of Theoretical and Applied Statistics, 5(1), 1-4. https://doi.org/10.11648/j.ajtas.20160501.11

Fatima, I., Ilyas, A., Hafeez, A., Munir, W., & Asad, A. (2024). Illegitimate tasks and counterproductive work behavior: Exploring the mediating effects of toxic workplace culture and employee relationship conflict. Social Science Review Archives, 2(2), 2319–2338.

Fayolle, A., &Liñán, F. (2014). The future of research on entrepreneurial intentions. Journal of Business Research, 67(5), 663–666. https://doi.org/10.1016/j.jbusres.2013.11.024

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. Journal of Vocational Behavior, 65(1), 14–38.

Fuller, B., Marler, L., & Hester, K. (2018). Proactive personality, learning goal orientation, and behavioral career success. Journal of Vocational Behavior, 108, 91–103. https://doi.org/10.1016/j.jvb.2018.07.004

Goleman, D. (1995). Emotional Intelligence: Why It Can Matter More Than IQ. Bantam Books.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate Data Analysis (8th ed.). Cengage Learning.

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Hayes, A. F. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. The Guilford Press.

Hillage, J., & Pollard, E. (1998). Employability: Developing a Framework for Policy Analysis. Research Report 85. Department for Education and Employment.

Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2017). Entrepreneurship (10th ed.). McGraw-Hill Education.

Hmieleski, K. M., &Carr, J. C. (2008). The relationship between entrepreneur personality traits and the tendency to start businesses in emerging markets. Journal of Business Venturing, 23(3), 261–280. https://doi.org/10.1016/j.jbusvent.2007.03.001

Hu, L. T., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6(1), 1–55. https://doi.org/10.1080/10705519909540118

Hussain, S. A., Dasan, J., Ilyas, A., Khan, A. H., & Siddiq, I. (2024). Constructing knowledge resources mastery: Exploring knowledge composition in process design – A resource-based theory perspective. Journal of Excellence in Social Sciences, 3(3), 84–94.

Iqbal, J., Ashraf, H. A., Kurshid, S. K., Shahzadi, F., & Azeem, M. (2023). The Mediating Effect of Brand Reliability and Assurance between Trustworthiness and Customer Satisfaction of Islamic Banking Sector of Pakistan. *International Journal of Social Science & Entrepreneurship*, *3*(2), 712-733.

Iqbal, J., Ashraf, H. A., Kurshid, S. K., Shahzadi, F., & Azeem, M. (2023). The Mediating Effect of Brand Reliability and Assurance between Trustworthiness and Customer Satisfaction of Islamic Banking Sector of Pakistan. *International Journal of Social Science & Entrepreneurship*, *3*(2), 712-733.

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Iqbal, J., Ashraf, H. A., & Fatima, A. (2023). Smiles and Struggles: Investigating the Effects of Leader Emotional Labour Strategies on Job Satisfaction and Emotional Exhaustion in the Service Industry. *Global Social Sciences Review, 8*(1), 564-578.

Iqbal, J., Ashraf, H. A.,Islam, A., & Ahmad, M.The Empowerment Bridge: Assessing the Role of Employee Empowerment in Transmitting the Impact of Servant and Transformational Leadership on Creativity and Team Innovation. *Journal of Business and Management Research*, *2*(2), 1–18

Maseeh, H. I., Nahar, S., Jebarajakirthy, C., Ross, M., Arli, D., Das, M., ... & Ashraf, H. A. (2023). Exploring the privacy concerns of smartphone app users: a qualitative approach. *Marketing Intelligence & Planning*.41(7)

Ilyas, A. (2014). The impact of human, social, cultural and financial capital on nascent entrepreneurs in Pakistan. The International Conference on Entrepreneurship IEC 2014.

Ilyas, A. (2022). Entrepreneurial mindset of final year students: A moderated and mediation analysis. 2nd International Conference Graduate & Colloquium and 3-Minute Thesis.

Ilyas, A. (2023). Entrepreneurial intention among children: Findings from school-going children compared with children at workplace. Asia-Pacific Social Science Review, 23(2), Article 8.

Ilyas, A., & Hassan, R. B. A. (2019). Suitable research methods for informal entrepreneurship. International Journal of Current Research, 11(2), 1025–1029.

Ilyas, A., Hassan, R. A., Khan, W. A., Abang Abdurahman, A. Z. bin, & Fahim, S. M. (2020). Important determinants of informal entrepreneurs. Journal of Talent Development and Excellence, 12(3s), 2697–2714.

Ilyas, A., Hassan, R., Khan, A., & Khan, W. (2021). Illegitimate tasks and job satisfaction among employees of micro informal enterprises. Management Science Letters, 11(1), 291–296. https://doi.org/10.5267/j.msl.2020.9.011

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Ilyas, A., Khan, A. H., & Anoosha, H. K. (2020). Need assessment of entrepreneurship education in pharmaceutical and pure science institutions of Lahore. Unpublished Research Report.

Ilyas, A., Khan, A. H., Zaid, F., Ali, M., Razzaq, A., & Khan, W. A. (2020). Turnover intention of employees, supervisor support, and open innovation: The role of illegitimate tasks. Journal of Open Innovation: Technology, Market, and Complexity, 6(4), 128. https://doi.org/10.3390/joitmc6040128

Ilyas, A., Martins, J. M., Hassan, R. A., & Mata, M. N. (2021). The mediator role of anger in the relationship between illegitimate tasks and SME employee's turnover: Empirical evidences from developing nation. Academy of Entrepreneurship Journal, 27(2), Article 1528-2686-27-S2-22.

Ilyas, A., Shahid, M. S., & Hassan, R. A. (2020). Evaluating the motives of child labourers in the informal economy. International Journal of Sociology and Social Policy, 40(3/4), 409–424. https://doi.org/10.1108/IJSSP-02-2019-0033

Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. Journal of Management, 29(6), 963–989.

Kuratko, D. F. (2007). Entrepreneurship: Theory, Process, and Practice. Cengage Learning.

Law, K. S., Wong, C. S., & Song, L. J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. Journal of Applied Psychology, 89(3), 483–496.

Lin, C. H., & Hsieh, P. L. (2007). The influence of technology readiness on satisfaction and behavioral intentions toward self-service technologies. Computers in Human Behavior, 23(3), 1597–1615.

Mayer, J. D., Roberts, R. D., &Barsade, S. G. (2008). Human abilities: Emotional intelligence. Annual Review of Psychology, 59(1), 507–536. https://doi.org/10.1146/annurev.psych.59.103006.093646

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

McGrath, R. G., & MacMillan, I. C. (2000). The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty. Harvard Business School Press.

Nasarullah, S., Ilyas, A., Mughal, S. A., & Jaffar, F. (2025). Illegitimate tasks, stress and mental health: A study of the correlates and consequences of toxic workplaces. Journal of Asian Development Studies, 14(2), 468–481.

Ng, E. S. W. (2018). The impact of technological change on employability: A review of the literature. International Journal of Human Resource Management, 29(13), 2030-2055.

Ng, T. W., & Feldman, D. C. (2013). Employee voice behavior: A meta-analytic test of the conservation of resources framework. Journal of Organizational Behavior, 34(6), 781–812. https://doi.org/10.1002/job.1831

OECD. (2019). Getting skills right: Future-ready adult learning systems. OECD Publishing. https://doi.org/10.1787/9789264311756-en

Parasuraman, A. (2000). Technology readiness index (TRI): A multiple-item scale to measure readiness to embrace new technologies. Journal of Service Research, 2(4), 307–320.

Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. Journal of Management, 36(1), 94–120. https://doi.org/10.1177/0149206309352110

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. Annual Review of Psychology, 63(1), 539–569. https://doi.org/10.1146/annurev-psych-120710-100452

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Rothwell, A., & Arnold, J. (2007). Self-perceived employability: development and validation of a scale. Personnel Review, 36(1), 23–41.

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Sabeen, S., Ilyas, A., Gulraiz, M., Zubair, Z., Khan, A. H., & Munir, W. (2025). Unraveling the impact of abusive supervision on emotional exhaustion: A serial mediation model of stress, relational conflict, and toxic workplaces. Social Science Review Archives, 3(1), 2109–2130.

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. Imagination, Cognition, and Personality, 9(3), 185-211.

Shepherd, D. A., & Krueger, N. F. (2002). An intentions-based model of entrepreneurial teams' social cognition. Entrepreneurship Theory and Practice, 27(2), 167–185.

Tarafdar, M., Pullins, E. B., & Ragu-Nathan, T. S. (2015). Technostress: Negative effect on performance and possible mitigations. Information Systems Journal, 25(2), 103–132. https://doi.org/10.1111/isj.12042

Tett, R. P., Jackson, D. N., & Rothstein, M. (2000). Personality measures as predictors of job performance: A meta-analytic review. Personnel Psychology, 53(2), 465-493.

Van der Heijden, B. I. (2005). The Well-Being of Older Workers: An Empirical Exploration of the Relationships between Employability and Organizational Commitment. Tilburg University.

van Laar, E., van Deursen, A. J., van Dijk, J. A., & de Haan, J. (2017). The relation between 21st-century skills and digital skills: A systematic literature review. Computers in Human Behavior, 72, 577–588. https://doi.org/10.1016/j.chb.2017.03.010

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. The Leadership Quarterly, 13(3), 243–274.

Zaid, F., Khan, A. H., Ilyas, A., & Azeem, M. (2022). Financial risk tolerance mediates the relationship between personality traits and investment intentions by moderating the role of financial literacy. Journal of ISOSS, 8(4), 203–210.

Volume. 4 Issue No. 3 (2025)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Zaid, M. F., Khan, A. H., Ilyas, A., & Azeem, M. (2022). Financial risk tolerance mediates the relationship between personality traits and investment intentions by moderating the role of financial literacy. Journal of Islamic Countries Society of Statistical Sciences, 8(4), 203–210.