

**Analyzing the Effect of Digital Literacy, Entrepreneurial Education, and Perceived Social Support on Entrepreneurial Career Intentions: Mediating Role of Self-Efficacy**

**Ms. Iqra Nasir**

MBA Scholar, Department of Management Sciences, National University Of Modern Languages, Quetta Email: iqranasir94@hotmail.com

**Ms. Sania Sikander**

Lecturer, Department of Management Sciences, National University Of Modern Languages, Quetta, Pakistan Email: sania.sikander@numl.edu.pk

**Dr. Asma Azhar**

Assistant Professor, Department of Commerce, Sardar Bahadur Khan Women University, Quetta Email: asma.azhar@sbkwu.edu.pk

**Abstract**

**Purpose:** This study examines the factors impacting ECI (Entrepreneurial Career Intention) among university students in Quetta, Pakistan, with particular focus on digital literacy, entrepreneurial education, perceived social support, and their inter-relationship. They also examine whether self-efficacy mediates these relationships.

**Methodology:** Using a structured questionnaire, a quantitative research design was conducted, and data were collected from 277 students studying in universities and colleges in Quetta. The data were assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS4.1.1.

**Results:** Digital literacy, Entrepreneurial education, and perceived social support have positive and significant effects on entrepreneurial career intention. The strongest predictor was digital literacy. Moreover, the relationship between digital literacy, entrepreneurial education, perceived social support, and ECI is significantly mediated by self-efficacy. Thus, student confidence plays a critical role.

**Originality/work value:** This study adds to the literature through the incorporation of technological, educational, social support, and psychological factors into one framework in the context of a developing country like Pakistan. This industry insight led to exploring digital skills and social support of current and potential students to foster venture creation intentions from the Global South.

**Keywords:** Entrepreneurial Career Intention, Digital Literacy, Self-Efficacy, Entrepreneurship Education, Perceived Social Support, PLS-SEM, Pakistan

## Introduction

### Background of the Study

Entrepreneurship is a mechanism that drives the economy of a country through increased productivity and job creation (Lestari & Setiawan, 2021). In emerging economies such as Pakistan, fostering entrepreneurship is essential to reduce unemployment rates and increase GDP (SALL, 2022). Entrepreneurship is dependent on the combination of motivation and cognition, coupled with decision-making abilities in unpredictable environments (Andrade-Valbuena & Santos, 2026; Nenzhelele et al., 2016).

The rapid digitalization of the global economy has converted how new ventures are established (Gabrielsson et al., 2022). Digitalization has become a crucial tool used for communication and collaboration among businesspeople who can now exploit their ventures through online e-commerce systems (Alay, 2023; Gabrielsson et al., 2022). On the other hand, Pakistani students are well equipped with digital devices like smartphones and various applications, but they are lacking the technical expertise required to utilize the devices properly (Dahraj et al., 2020).

Furthermore, entrepreneurship education can be considered a new method in higher education institutions, with the intent of developing an entrepreneurial mindset by enhancing essential skills, competencies, and associated qualities (Ahmed, 2022). It also offers a potential way of enhancing entrepreneurship intentions among the learners, especially when such education builds self-confidence among them (Soelaiman et al., 2024; Wang et al., 2021).

Empirical study proves that social support, particularly from family members and spouses, is vital for an entrepreneur's happiness and contentment (Soelaiman et al., 2024; Huag et al., 2024). In Pakistan, cultural norms frequently influence individuals to pursue more conventional jobs, such as those in medicine and law, which may pose social pressure that discourages young adults from engaging in entrepreneurship (Sarwar et al., 2023). Students who have access to adequate social support find it easier to cope with psychological barriers and motivate themselves to become successful entrepreneurs (Huang et al., 2024; Zhang, 2025).

Previous results indicate that self-efficacy acts as a bridge that converts knowledge, skills, and support into entrepreneurial motivation (Uzkurt et al., 2024; Ye & Kang, 2025). Furthermore, ESE is defined as the belief held by the student about their ability to successfully execute their entrepreneurial venture (Ferreira-Neto et al., 2023; Li et al., 2023).

It is important to analyze the effect of digital literacy, entrepreneurship education, and social support perception on the entrepreneurial intentions of students at the university/college level in Quetta through the mediation of self-efficacy. There are two major gaps in the existing literature: first, most of the studies in the existing literature have looked at these variables separately without any integration or incomplete combination of variables in a model. The second gap relates to geographical considerations, which means there is a lack of studies that have been conducted within the socio-economic conditions of Quetta, Pakistan. The contribution made by the current study lies on both theoretical and practical grounds. First, the

study offers a theoretical contribution as it integrates these variables into one framework. Second, it contributes on practical grounds by offering guidance to universities and colleges to implement student-centric practices related to improving digital literacy and self-efficacy. Lastly, it underscores the need for Pakistani policymakers to develop strong social support systems for the youth to engage in self-employment activities.

### **Literature review**

#### **Digital Literacy and Entrepreneurial Intention**

Digital literacy is currently considered a critical skill among entrepreneurs due to rapid technological advancements in the current environment (Bachmann et al., 2024). For entrepreneurs to start and run their businesses within the digital environment, they have to understand how to use different platforms for conducting their operations (Abaddi, 2026; Mitrache, 2025). According to studies, digital literacy plays an important role in encouraging creativity, thinking skills, and engagement within the digital world, which is essential for entrepreneurship development (Alt & Raichel, 2020; Wardoyo et al., 2024). A previous study by Maulani et al. (2023) revealed that higher digital literacy has been linked to greater engagement in entrepreneurial endeavors

#### **Entrepreneurial Education and Entrepreneurial Intention**

Entrepreneurial education has significant importance in the promotion of entrepreneurial intention by enabling individuals to acquire the necessary knowledge, skills, and competence (Irfan et al., 2025). Entrepreneurial education enables students to be more competent in identifying business opportunities and managing entrepreneurial ventures successfully (Lv et al., 2021; Wu et al., 2022). In addition, Arifia et al. (2024) and Sun et al. (2023) reported that entrepreneurial education offers students the necessary exposure in the form of internships and real-world experiences, which affect entrepreneurial intention.

#### **Perceived Social Support and Entrepreneurial Intention**

Recently, there has been an increased concentration by researchers on how individuals' perception of social support impacts their intentions of establishing a venture. According to the literature, social support enhances the chances of forming a venture (Hewen & Omar, 2025). There is evidence suggesting that encouragement and the extent to which people feel supported in their communities are important variables affecting perceptions of venture viability (Barrera-Verdugo et al., 2024). Specifically, research shows that social support positively influences self-efficacy among entrepreneurs and mitigates fear associated with entrepreneurship (Niu et al., 2022). Such findings support reasoned action and social exchange theories, which suggest that social networks play an integral role in shaping individuals' intentions (Irfan et al., 2025).

### **Mediating Role of Self-Efficacy**

Self-efficacy has long been established as an important mediator in entrepreneurship research by contributing to the understanding of how environmental and individual factors influence one's entrepreneurial intentions (Uzkurt et al., 2024). Likewise, Mulyono et al. (2023) establish the role of self-efficacy between digital literacy, entrepreneurship education, and entrepreneurship intentions. Moreover, Ghouse et al. (2024) reveal that even highly educated people lack the motivation to be entrepreneurs due to a lack of belief in themselves, suggesting the importance of self-efficacy in shaping entrepreneurial intentions. In addition, there is empirical evidence suggesting that social support enhances self-efficacy, leading to a positive impact on entrepreneurial intentions (Jiatong et al., 2021; Mukhtar et al., 2021).

### **Theoretical Foundation**

This research grounded on many theories. the Theory of Planned Behavior proposed by Ajzen (1991), according to which intention depends on attitude, norms of others, and perceived control. In this case, digital literacy and entrepreneurship education are the facilitators that improve attitude and perception, while social support represents subjective norms. Moreover, Social Cognitive Theory formulated by Bandura (1997) implies that individuals' belief in personal abilities is vital for their motivation and action. In particular, Bandura (1986) states that learning process influences self-concept and career aspirations. Furthermore, Digital Literacy Theory developed by Gilster (1997) pays much attention to the need of technological competence in order to identify opportunities in the digital world. Moreover, Social Support Theory introduced by Cohen & Wills (1985) proposes that an individual will gain greater self-confidence and be motivated enough to start up a business due to the social network support.

Digital literacy is an important aspect when it comes to tapping into the potential of identifying and exploiting business opportunities in the digital economy (Prabawati et al., 2025; Shatila et al., 2025). With digital literacy, one will have a better chance of using digital technology for effective navigation through the online space, managing their digital ventures, and exploiting information from the marketplace (Park & Kim, 2025; Setyawati et al., 2026). The impact of digital literacy has been observed in enhancing entrepreneurship intention due to improved technical competence and opportunity identification (Mulyono et al., 2023; Maulani et al., 2023).

**H<sub>1</sub>:** Digital literacy has a significant positive effect on entrepreneurial intention.

Entrepreneurship education provides students with the knowledge, skills, and attitude necessary for entrepreneurs (Alkhalaileh et al., 2023; Soelaiman et al., 2024). It promotes creative and innovative thinking, as well as opportunity recognition, which is crucial in establishing an enterprise (Raghavendra & H, 2025; Malathi & Venugopal, 2025). Literature review indicates that entrepreneurship education plays a vital role in enhancing entrepreneurship intentions among students (Cera et al., 2020; Yousaf et al., 2021).

**H<sub>2</sub>:** Entrepreneurial education has a significant positive effect on entrepreneurial intention.

Social perception influences entrepreneurship intentions through motivation, inspiration, and resource availability (Gao & Zhao, 2026; Irfan et al., 2025). When individuals have social support from family, friends, or mentors, they are more likely to be motivated to engage in entrepreneurship-related tasks (Niu et al., 2022; Tumati & Kumar, 2022). Furthermore, social support decreases uncertainty and builds confidence, which positively impacts entrepreneurial intentions (Yousaf et al., 2020; Cera et al., 2020). Moreover, social networks provide financial and information-based assistance, facilitating entrepreneurship endeavors (Jiatong et al., 2021; Mukhtar et al., 2021).

**H<sub>3</sub>:** Perceived social support has a significant positive effect on entrepreneurial intention.

Self-efficacy acts as an intermediary variable in the relationship between digital literacy and entrepreneurial intention, as noted by (Akhter et al., 2022; Al-Mamary et al., 2025). Previous research by Fiorentina, (2022) reported that as a result of being digitally literate, one's sense of efficacy in managing the task becomes stronger, prompting him or her to pursue entrepreneurship. Furthermore, it has been seen that digital literacy increases one's self-efficacy when it comes to utilizing digital technology for performing business tasks (Robbani et al., 2025).

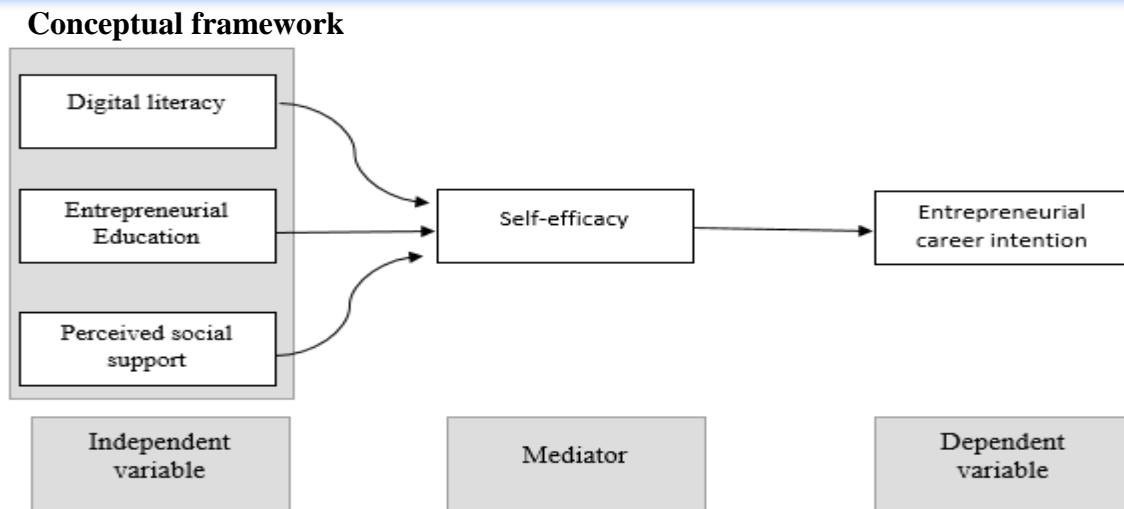
**H<sub>4</sub>:** Self-efficacy mediates the relationship between digital literacy and entrepreneurial intention

Entrepreneurial training improves the willingness of individuals to engage in ventures. The same education increases individuals perceived self-efficacy to carry out business tasks (Sulaiman, 2024). Self-efficacy, therefore, determines whether people can adopt an entrepreneurial course, through the training process, learners acquire both the knowledge and skills required for undertaking business tasks, and this improves individuals' self-efficacy (Li et al., 2023; Lianto et al., 2025). Research shows that the impact of entrepreneurship education on self-efficacy is effective in enhancing self-efficacy, and this acts as the mediator in the relationship between education and entrepreneurial intentions. Scholars such as Mulyono et al. point out self-efficacy as an important mediator in this relationship (Taneja et al., 2023; Wu et al., 2022; Mulyono et al., 2023).

**H<sub>5</sub>:** Self-efficacy mediates the relationship between entrepreneurial education and entrepreneurial intention.

The positive impact of perceived social support on entrepreneurial intention comes from the fact that social support improves individuals' self-confidence (Galvão et al., 2024; Yesmin et al., 2024). Social support from family members, friends, and mentors makes people feel encouraged and gives them greater confidence in engaging in entrepreneurship (Gao & Zhao, 2026). Individuals who enjoy substantial social support are usually more confident about their ability to engage in entrepreneurship (Uzkurt et al., 2024). The role of social support on individuals' self-efficacy and their subsequent entrepreneurial intention has been proven (Jiatong et al., 2021; Mukhtar et al., 2021).

**H<sub>6</sub>:** Self-efficacy mediates the relationship between perceived social support and entrepreneurial intention.



## Research Methodology

### Data recruitment

This study adopts a quantitative research methodology to investigate the associations among digital literacy, entrepreneurial education, perceived social support, self-efficacy, and entrepreneurial intention. A cross-sectional survey design was employed, facilitating data collection from participants at a single point in time. This approach is well-suited for testing hypothesized relationships and evaluating the influence of multiple independent variables on entrepreneurial intention via statistical methods. The target population consisted of university and college students in Quetta. Participants from diverse academic programs were included who studied entrepreneurship as a subject. Convenience sampling was utilized due to constraints in time and accessibility. Almost 300 printed questionnaires were distributed, 281 were returned, and after excluding incomplete responses, 277 usable responses were retained for analysis. This sample size is deemed adequate for Structural Equation Modeling, particularly with SmartPLS4.1.1 software. Data were gathered using a structured questionnaire adopted from validated scales in existing literature. The instrument comprised sections on demographic information and scales assessing digital literacy, entrepreneurial education, perceived social support, self-efficacy, and entrepreneurial career intention. All items employed a 5-point Likert scale, from "strongly disagree" to "strongly agree." Prior to main data collection, the questionnaire was reviewed for clarity and relevance. Participants were informed of the study's purpose and assured of confidentiality, with responses used exclusively for academic purposes.

### Research Instruments

The data instrument consists of 5 variables: Digital literacy, Entrepreneurial Education, Perceived social support, Self-efficacy, and Entrepreneurial career intention. Digital literacy consists of 5 items (Setiawati et al., 2022). Entrepreneurial Education consists of 5 items given by Mukhtar et al. (2021). Perceived social support

consists of 6 items (Muhammed et al., 2021). Self-efficacy consists of 6 items (Guo, 2023). Entrepreneurial Intention consists of 6 items given by (Muhammed et al., 2021). The reliability and validity of the research measurement tool were provided by using existing scales (Flinn & Kalkbrenner, 2021; Sürücü & Maslakçi, 2020). All items were rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), which respondents can use to indicate their level of agreement with these statements. This scale of measurement is one that social sciences regularly use to measure attitudes and perceptions (“Likert Scale in Social Sciences Research: Problems and Difficulties”, 2022; Rokeman, 2024).

### Data Analysis Technique

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS4.1.1 software. This technique was selected due to its suitability for analyzing complex models involving multiple constructs and mediating relationships, as well as its effectiveness with relatively small sample sizes. The analysis involved evaluating the measurement model to assess reliability and validity, followed by the structural model to test the proposed hypotheses. Additionally, mediation analysis was conducted to examine the indirect effects of self-efficacy on the relationships between independent variables and entrepreneurial intention.

### Empirical results

#### Demographic results

**Table 1 Population statistics**

Description		Frequency	Percent
Gender	Male	133	48.0%
	Female	144	52.0%
Age	Blow 20 years	70	25.3%
	21-23	60	21.7%
	24-26	81	29.2%
	27-29	37	13.4%
	30and above	29	10.5%
Education	Under graduation	85	30.7%
	Graduate	69	24.9%
	Maters	112	40.4%
	Others	11	4.0%
Business	Yes	121	43.7%
	No	156	56.3%
Institution	University of Baluchistan	35	12.6%
	Government Collage	65	23.5%
	Girls Collage		

Sardar bahdur kahan women's University	55	19.9%
Numl University	65	23.5%
BUIITEMS University	57	20.6%
<b>Total</b>	<b>277</b>	<b>100.0%</b>

**Measurement Model Analysis**

Evaluating a reflective measurement model includes factor loadings, internal consistency reliability, and convergent validity. (Hair et al., 2021). This part explicates these parameters for five constructs: Digital Literacy, Entrepreneurial Career Intention, Entrepreneurial Education, Perceived Social Support, and Self-Efficacy. Factor loadings (FL), also referred to as outer loadings, indicate the strength of the relationship between each observed indicator and its corresponding latent construct, with a recommended threshold of 0.70 or higher, suggesting that more than 50% of the indicator's variance is explained by the construct (Hair et al., 2018). However, loadings between 0.40 and 0.70 may be retained if their removal does not significantly improve reliability or validity (Hair et al., 2021). Internal consistency reliability is assessed using Composite Reliability (CR) and Cronbach's Alpha (CA), where CR is preferred in PLS-SEM due to its ability to account for varying indicator loadings, while CA assumes equal weighting and may underestimate reliability (Hair et al., 2019; Jöreskog, 1971). Acceptable reliability values range from 0.70 to 0.90, whereas values above 0.95 may indicate redundancy or response bias (Diamantopoulos et al., 2012; Drolet & Morrison, 2001). Convergent validity is evaluated using Average Variance Extracted (AVE), which measures the extent to which a construct explains the variance of its indicators, with a threshold of 0.50 or higher indicating that at least 50% of the variance is captured by the construct (Fornell & Larcker, 1981; Hair et al., 2019).

In Table 2 All the items in the reflective measurement model also demonstrate desirable reliability and validity, with Cronbach's Alpha and Composite Reliability values > 0.70, and AVE values > 0.50. A majority of the item loadings are > 0.708, which seems to confirm item reliability. Notably, EC11 was removed from the model in the reliability analysis since it had a factor loading less than 0.70 and was found to impact adverse effect on the average loading and overall construct reliability. Its deletion led to a better AVE and more stable internal consistency measures, thus making the model better and adequate for research (Hair et al., 2018). All of this is consistent with given guidelines for PLS-SEM, which means that the latent constructs are being properly and systematically measured within the model (Putra, 2022).

**Table 2 Measurement Model Assessment, Factor Loading, reliability and validity statistics**

Variables	FL	CA	CR	AVE
Digital Literacy		0.880	0.912	0.675
DL1	0.791			
DL2	0.822			
DL3	0.807			
DL4	0.847			
DL5	0.840			
Entrepreneurial Education		0.916	0.937	0.749
EE1	0.846			
EE2	0.867			
EE3	0.854			
EE4	0.898			
EE5	0.862			
Perceived Social Support		0.893	0.919	0.653
PSS1	0.794			
PSS2	0.871			
PSS3	0.799			
PSS4	0.824			
PSS5	0.823			
PSS6	0.733			
Self-Efficacy		0.904	0.927	0.679
SE1	0.854			
SE2	0.870			
SE3	0.870			
SE4	0.838			
SE5	0.736			
SE6	0.764			
Entrepreneurial Career Intention		0.887	0.918	0.693
ECI2	0.700			
ECI3	0.794			
ECI4	0.881			
ECI5	0.881			
ECI6	0.888			

**Discriminant validity**

Importance of Discriminant validity is because it guarantees that an item is actually separate from all other items in the model. Put another way, it checks that various variables are indeed measuring different things, not merely somewhat different aspects of the same thing (Taherdoost, 2016). The HTMT ratio is a fairly new and

strong way to determine discriminant validity, more so than convictional method such as the Fornell-Larcker criterion or cross-loadings (Hair et al., 2018; Putra, 2022). Table3 shows the evidence that all diagonal values (square root of AVE) are larger than all off-diagonal values (inter-construct correlations) within the same row and column further ensures that Fornell-Larcker criterion is satisfied (Fornell and Larcker, 1981). This is a proof of very good discriminant validity for all constructs. Furthermore, the findings show sufficient discriminant validity since the square root of each construct's AVE is larger than its correlation with any other construct (Hair et al., 2017).

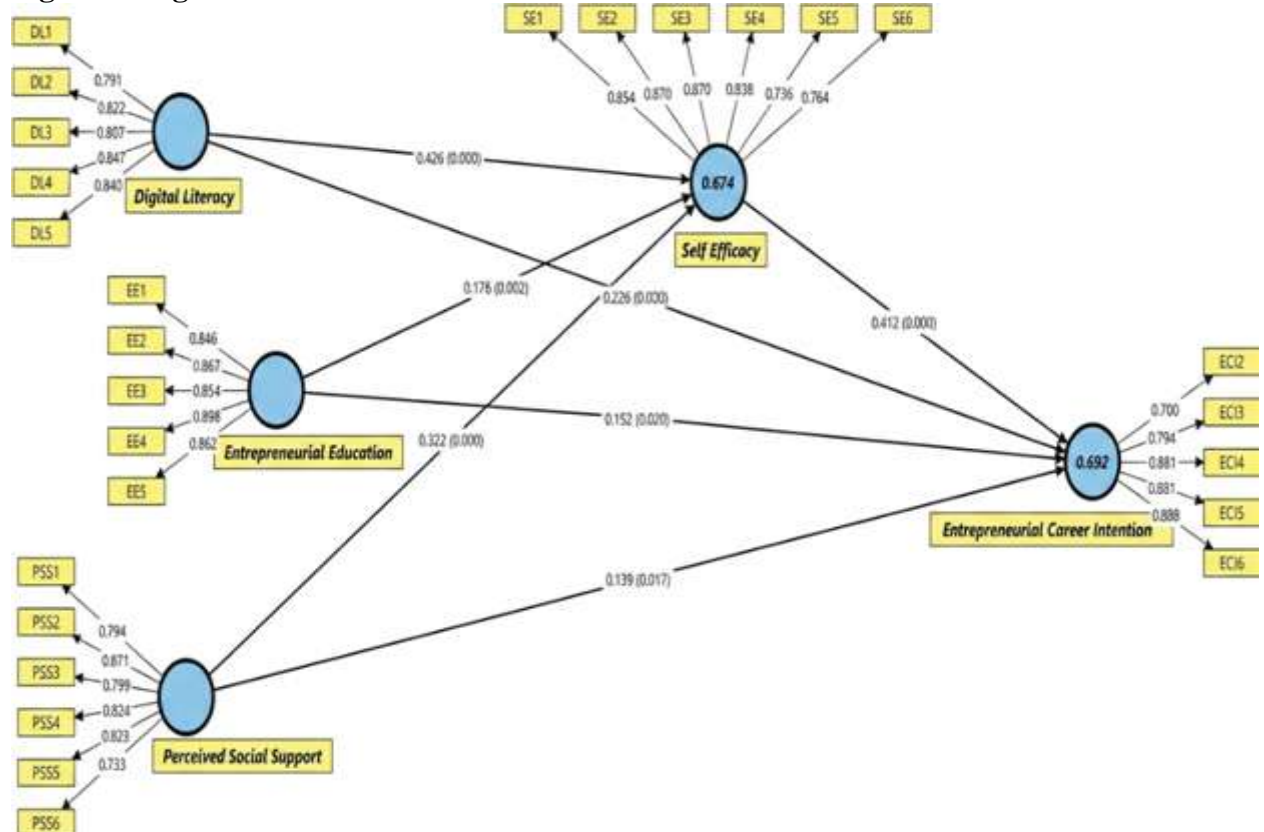
**Table 3 Discriminant validity Fornell-Larcker Criterion**

Items	Digital Literacy	Entrepreneurial Career Intention	Entrepreneurial Education	Perceived Social Support	Self-Efficacy
Digital Literacy	<b>0.822</b>				
Entrepreneurial Career Intention	0.728	<b>0.832</b>			
Entrepreneurial Education	0.716	0.709	<b>0.866</b>		
Perceived Social Support	0.612	0.680	0.726	<b>0.808</b>	
Self-Efficacy	0.749	0.789	0.715	0.711	<b>0.824</b>

**Structural model**

A structural model is a core component of Structural Equation Modeling (SEM) that captures the hypothesized causal relationships among latent constructs (Hair et al., 2018; Sarstedt et al., 2022). PLS-SEM predicts structural paths and assesses model fit utilizing pivotal indices like  $R^2$  (coefficient of determination), path coefficients, and effect sizes ( $f^2$ ). In general, structural models enable researchers to test hypotheses in a data-based manner, ascertain the validity of cause-and-effect relationships, and make evidence-based choices in intricate multivariable situations.

Figure 1: Figure of measurement and structural model



Resources: SmartPLS4.1.

**Path Coefficient**

Path coefficients in Partial Least Squares Structural Equation Modeling (PLS-SEM) are a measure of the direction and potency of the link among structural model latent constructs. They are theoretically equivalent to standardized regression weights and are instrumental in the testing of causal hypotheses (Hair et al., 2019).

Table 4 Path Coefficient

Relationship	Path Coefficient (β)	Standard deviation (STDEV)	T statistics	P values	Decision
Digital Literacy → Entrepreneurial Career Intention	0.226	0.062	3.623	0.000	Supported
Entrepreneurial Education → Entrepreneurial Career Intention	0.152	0.065	2.320	0.020	Supported
Perceived Social Support → Entrepreneurial Career Intention	0.139	0.058	2.390	0.017	supported
Digital Literacy → Self-Efficacy → Entrepreneurial Career Intention	0.176	0.036	4.908	0.000	Supported

Entrepreneurial Efficacy Intention	Education → Entrepreneurial	→ Self-Career	0.073	0.027	2.675	0.007	Yes/supported
Perceived Efficacy Intention	Social Support → Entrepreneurial	→ Self-Career	0.133	0.033	4.043	0.000	Yes/supported

The result of hypothesis is shown in table 5 the structural model analysis identified a number of statistically significant correlations between the variables of interest. H<sub>1</sub> Digital Literacy has a direct and meaningful relationship with Entrepreneurial Career Intention ( $\beta = 0.226$ ,  $t = 3.623$ ,  $p = 0.000$ ), which shows that those with higher digital literacy tend to seek entrepreneurial careers. Thus, H<sub>1</sub> is supported. In the same manner, H<sub>2</sub> Entrepreneurial Education directly influenced Entrepreneurial Career Intention ( $\beta = 0.152$ ,  $t = 2.320$ ,  $p = 0.020$ ), thereby supporting H<sub>2</sub>. Similarly, H<sub>3</sub> Perceived Social Support also had a significant positive correlation with Entrepreneurial Career Intention ( $\beta = 0.139$ ,  $t = 2.390$ ,  $p = 0.017$ ), thus supporting H<sub>3</sub>. The model also tested indirect (mediated) effects via Self-Efficacy. H<sub>4</sub> the trajectory from Digital Literacy to Entrepreneurial Career Intention through Self-Efficacy was statistically significant ( $\beta = 0.176$ ,  $t = 4.908$ ,  $p = 0.000$ ), reflecting an extremely strong indirect effect, which confirms H<sub>4</sub>. Similarly, H<sub>5</sub> Entrepreneurial Education has a meaningful indirect effect on Entrepreneurial Career Intention by Self-Efficacy ( $\beta = 0.073$ ,  $t = 2.675$ ,  $p = 0.007$ ), supporting H<sub>5</sub>. Lastly, H<sub>6</sub> Perceived Social Support also played an impactful role in Entrepreneurial Career Intention through Self-Efficacy ( $\beta = 0.133$ ,  $t = 4.043$ ,  $p = 0.000$ ), demonstrating the psychological empowerment mechanism by which social support induces entrepreneurialism career intention, which supports H<sub>6</sub>.

## Discussion

### Key Findings

The results show that digital literacy has a significant positive influence on entrepreneurial career intention. This shows that students in Quetta have a greater tendency towards entrepreneurial career intentions as digital literacy increases. This result resonates well with the theory of planned behavior as digital literacy will make it possible for the respondents to increase perceived behavioral control (Ajzen, 1991). Moreover, these findings are in line with the results of previous researchers who found out that digital literacy significantly predicts entrepreneurial intention (Onwubuya & Odogwu, 2023; Mulyono et al., 2023; Maulani et al., 2023). On the other hand, the strength of influence is not too high compared to the results of technologically advanced areas. Moreover, the findings reveal that entrepreneurial education has a significant impact on entrepreneurial career intention. This confirms the impact of entrepreneurship education on the knowledge, skills, and preparedness of students to engage in entrepreneurial careers. This aligns with the Social Cognitive Theory, which argues that learning influences self-beliefs and career intentions (Bandura, 1985, 1986; Heffernan, 1988). They are also in agreement with the

literature concerning the significance of education in cultivating an entrepreneurial mind, self-efficacy, and competence (Wardana et al., 2020; Wahyuningsih & Arisnawati, 2021). The fact that the coefficient value was slightly low compared to digital literacy, it indicates that without other factors, education on its own does not significantly promote entrepreneurial intentions. Similarly, the results prove the significant impact of perceived social support on entrepreneurial career intention. This shows the importance of family, peers, and institutions in the entrepreneurial decision-making process. In the socio-cultural scenario of Quetta City, family influence is the key factor. Social support helps in reducing the risks involved in entrepreneurial decisions. This supports Social Support Theory by Cohen & Wills (1985). The current results align with previous research findings that social support positively affects entrepreneurial intentions by motivating and influencing individuals psychologically (Akhter et al., 2022; Ouni & Jarboui, 2025). While other global studies focus more on institutional support, the present study emphasizes the role of social support in developing countries due to cultural differences. Moreover, the results exhibit an importance of the mediation effect of self-efficacy between digital literacy and entrepreneurial intention. The results suggest that digital literacy improves individuals' self-confidence, which, in turn, leads to higher entrepreneurial intentions. This outcome is in line with the theory of self-efficacy (Bandura, 1997), which argues that mastery experiences build self-confidence and behavioral intentions. These results are supported by previous empirical researches that link digital literacy with entrepreneurial intention through self-efficacy (Robbani, 2025; Darmanto et al., 2022; Mustain et al., 2023). On the other hand, the mediation is partial, implying that digital literacy impacts entrepreneurial intention via other means apart from self-efficacy. Furthermore, the findings show that self-efficacy is significant in mediating the relationship between entrepreneurial education and entrepreneurial career intention. It means that the entrepreneur training influences the self-efficacy that, in its turn, positively impacts entrepreneurial intention. This finding is in accordance with the Theory of Planned Behavior in which the perceptions of behavioral control depend on education (Ajzen, 1991). Also, this finding is corroborated by previous studies confirming self-efficacy mediation between the variables of entrepreneur education and entrepreneurial intentions (Wardana et al., 2020). Nevertheless, the relatively low value of mediation implies that the role of education cannot be very significant without additional experience-based learning activities.

This research concluded that self-efficacy significantly mediate the relationship between perceived support from the social environment and entrepreneurial career intention ( $\beta = 0.133$ ,  $p < 0.01$ ). It implies that social support boosts self-efficacy, leading to entrepreneurial intention. The findings corroborate the Social Cognitive Career Theory, which states that self-efficacy is determined by environmental support (Lent et al., 1994). Moreover, the results conform to current research findings that social support affects entrepreneurial intention indirectly via psychological empowerment and self-efficacy (Robbani, 2025). However, result shows relatively moderate effect, indicating that social effect alone is not sufficient; strong psychological support is needed.

### Study contribution

**Development of an Integrated Framework:** This research contributes to the development of an integrated framework involving entrepreneurial education, digital literacy, and perceived social support that sheds more light on the relationship between these constructs and entrepreneurial career intentions through self-efficacy.

**Extension of Existing Literature:** Through incorporating cultural insights from "The Global South," especially those from Pakistan, the study contributes to and extends existing entrepreneurship theories based on Western-centric.

**Pedagogical Implications:** The conclusions provide an actionable strategy for educational establishments on how to improve entrepreneurship courses, focusing not only on theories but also on developing practical knowledge, including digital skills for their students.

**Approach for Different Demographic Groups:** The current study presents a framework for women and rural youth in Quetta to break down social barriers using digital literacy. This research encourages the use of smartphones for networking rather than social media use, enabling them to gain the confidence to innovate internationally

### Future implications

This study implies that with the right support, knowledge, and digital literacy, students will become motivated to pursue entrepreneurship. Further, universities and colleges need to develop more courses for vocational training that cover the topics of starting and managing ventures. Government organizations can complement such efforts by implementing courses that increase students' confidence, either through mentoring, counseling, or funding opportunities. Today, with the importance of digital literacy and competence, students must know how to market themselves online, how to use digital media, understand e-commerce, and basic computer skills, otherwise, it won't be possible to be successful. Moreover, encouragement from families, professors, and friends can go a long way in motivating youth interested in forming their own companies. Additionally, this research can be prolonged and used in various cities, international settings, and organizational settings to investigate both Entrepreneurial and Intrapreneurship behavior.

### Conclusion

This research investigates how Digital literacy, entrepreneurial education, and Perceiving socially support effects Entrepreneurialism career intention of pupils in Quetta city, including self-efficacy as a mediator. Also, findings indicated that all three IV variables, digital-literate, entrepreneurial education, and perceiving social support, directly enhance students' entrepreneurial career intention. Most importantly, all these variables also enhance students' self-efficacy and belief, to intensify their entrepreneurial career intention.

Moreover, self-efficacy as a mediator plays an important role. When students believe in themselves, they become more inclined and fascinated by entrepreneurship. This

implies that confidence-building for students is as critical as sharing information or guidance with them.

Additionally, in a city like Quetta, where there are very few opportunities, entrepreneurship tends to bear an effective solution. Digital literacy can be improved, hands-on entrepreneurial education is possible in universities/colleges, and solid support structures would let the youth create their own futures and improve business intention.

**Reference:**

- Ahmed, R. a. S. I. N. (2022). Impact Of Entrepreneurship Education on Students' Entrepreneurial Inclination: A Case of Public Sector Universities. *Pakistan Journal of Educational Research*, 5(1). <https://doi.org/10.52337/pjer.v5i1.432>
- 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](https://doi.org/10.1016/0749-5978(91)90020-t)
- Akhter, A., Islam, K. M. A., Karim, M. M., & Latif, W. B. (2022). Examining determinants of digital entrepreneurial intention: A case of graduate students. *Problems and Perspectives in Management*, 20(3), 153–163. [https://doi.org/10.21511/ppm.20\(3\).2022.13](https://doi.org/10.21511/ppm.20(3).2022.13)
- Alay, H. K. (2023). *YENİ NORMALİN YENİ GİRİŞİMCİLİĞİ: DİJİTAL GİRİŞİMCİLİK*. <https://dergipark.org.tr/tr/pub/iesbad/issue/78680/1259080>
- Alkhalailah, M. Y., Kovács, S., & Kovács, J. K. (2023). Factors influencing digital entrepreneurship intention among undergraduate business students in Jordan. *Human Technology*, 19(3), 400–418. <https://doi.org/10.14254/1795-6889.2023.19-3.5>
- Al-Mamary, Y. H., Abubakar, A. A., & Jazim, F. (2025). Towards sustainable digital entrepreneurship: the mediating role of entrepreneurial Self-Efficacy and the moderating influence of social support. *Sustainability*, 17(23), 10499. <https://doi.org/10.3390/su172310499>
- Alt, D., & Raichel, N. (2020). Enhancing perceived digital literacy skills and creative self-concept through gamified learning environments: Insights from a longitudinal study. *International Journal of Educational Research*, 101, 101561. <https://doi.org/10.1016/j.ijer.2020.101561>
- Andrade-Valbuena, N. A., & Santos, M. a. D. (2026). Cognitive and contextual configurations in entrepreneurial opportunity evaluation: insights from fsQCA. *BMC Psychology*, 14(1), 203. <https://doi.org/10.1186/s40359-025-03940-1>
- Arifia, S., Pratondo, K., Zaid, Z., Somantri, A., & Bahy, M. P. A. (2024). Stimulating higher education students' entrepreneurial intention: Observing the influence of entrepreneurship education and lecturers' personal competence. *PAEDAGOGIA*, 27(1), 16. <https://doi.org/10.20961/paedagogia.v27i1.84237>
- Bachmann, N., Rose, R., Maul, V., & Hölzle, K. (2024). What makes for future entrepreneurs? The role of digital competencies for entrepreneurial intention. *Journal of Business Research*, 174, 114481. <https://doi.org/10.1016/j.jbusres.2023.114481>.

- Bandura A. (1985). *Social foundations of thought and action: a social cognitive theory*. CiNii Books. <https://ci.nii.ac.jp/ncid/BA00746561>
- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.
- Barrera-Verdugo, G., Cadena-Echverría, J., Durán-Sandoval, D., & Villarroel-Villarroel, A. (2024). Analysing the effect of resilience and perceived social environment on university students' intention to start sustainable ventures. *PLoS ONE*, 19(4), e0301178. <https://doi.org/10.1371/journal.pone.0301178>
- Cera, G., Mlouk, A., Cera, E., & Shumeli, A. (2020). The Impact of Entrepreneurship Education on entrepreneurial Intention. A Quasi-Experimental Research design. *Journal of Competitiveness*, 12(1), 39–56. <https://doi.org/10.7441/joc.2020.01.03>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Dahraj, M. T., Manzoor, H., & Tufail, M. (2020). Use of Digital Technological Tools among Undergraduate English Language Learners in Pakistan. *International Journal of English Linguistics*, 10(4), 61. <https://doi.org/10.5539/ijel.v10n4p61>
- Darmanto, S., Darmawan, D., Ekopriyono, A., & Dhani, A. U. (2022). Development of digital entrepreneurial intention model in Uncertain Era. *Uncertain Supply Chain Management*, 10(3), 1091–1102. <https://doi.org/10.5267/j.uscm.2022.7.050>
- Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P., & Kaiser, S. (2012). Guidelines for choosing between multi-item and single-item scales for construct measurement: A predictive validity perspective. *Journal of the Academy of Marketing Science*, 40(3), 434–449. <https://doi.org/10.1007/s11747-011-0300-3>
- Drolet, A. L., & Morrison, D. G. (2001). Do we really need multiple-item measures in service research? *Journal of Service Research*, 3(3), 196–204. <https://doi.org/10.1177/109467050133001>
- Ferreira-Neto, M. N., De Carvalho Castro, J. L., De Sousa-Filho, J. M., & De Souza Lessa, B. (2023). The role of self-efficacy, entrepreneurial passion, and creativity in developing entrepreneurial intentions. *Frontiers in Psychology*, 14, 1134618. <https://doi.org/10.3389/fpsyg.2023.1134618>
- Fiorentina, A. (2022). Pengaruh literasi digital dan efikasi diri terhadap intensi berwirausaha mahasiswa dalam E-Business. *JPEK (Jurnal Pendidikan Ekonomi Dan Kewirausahaan)*, 6(2). <https://doi.org/10.29408/jpek.v6i2.6681>
- Flinn, R. E., & Kalkbrenner, M. T. (2021). Matching Variables with the Appropriate Statistical Tests in Counseling Research. *Teaching and Supervision in Counseling*, 3(3). <https://doi.org/10.7290/tsc030304>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

- Gabrielsson, M., Raatikainen, M., & Julkunen, S. (2022). Accelerated Internationalization among Inexperienced Digital entrepreneurs: Toward a holistic entrepreneurial Decision-Making model. *Management International Review*, 62(2), 137–168. <https://doi.org/10.1007/s11575-022-00469-y>
- Ghouse, S. M., Barber, D., III, & Alipour, K. (2024). Shaping the future Entrepreneurs: Influence of human capital and self-efficacy on entrepreneurial intentions of rural students. *The International Journal of Management Education*, 22(3), 101035. <https://doi.org/10.1016/j.ijme.2024.101035>
- Gao, S., & Zhao, G. (2026). How social support shapes entrepreneurial intentions: sequential gains in self-efficacy and attitude. *Frontiers in Psychology*, 17, 1764921. <https://doi.org/10.3389/fpsyg.2026.1764921>
- Guo, T. (2023). The influence of digital marketing literacy and self-efficacy on the intention to be an e-commerce entrepreneur. *Journal of Research in Business and Management*, 11(5), 38-48.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2018). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/eb-11-2018-0203>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Sage Publications
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Heffernan, C. J. (1988). Social foundations of thought and action: A social cognitive theory, Albert Bandura Englewood Cliffs, New Jersey: Prentice Hall, 1986, xiii + 617 pp. Hardback. US\$39.50. *Behaviour Change*, 5(1), 37–38. <https://doi.org/10.1017/s0813483900008238>
- Hewen, Y., & Omar, A. R. C. (2025). The catalytic role of social support in entrepreneurial intention: A systematic literature review. *International Journal of Innovative Research and Scientific Studies*, 8(6), 180–190. <https://doi.org/10.53894/ijirss.v8i6.9523>
- Huang, M., Wang, J., & Su, X. (2024). The impact of social support on entrepreneurial well-being: The role of entrepreneurial passion and entrepreneurial efficacy. *SAGE Open*, 14(4). <https://doi.org/10.1177/21582440241297232>
- Irfan, M., Arif, F., Adnan, M., Ahmed, A., Akhtar, H., Shah, S. Z. A., & Umair, M. (2025a). The impact of entrepreneurial education and green markets on entrepreneurial intentions: a mediation-moderation study. *Discover Sustainability*, 6(1). <https://doi.org/10.1007/s43621-025-01316-4>

- Irfan, M., Arif, F., Adnan, M., Ahmed, A., Akhtar, H., Shah, S. Z. A., & Umair, M. (2025b). The impact of entrepreneurial education and green markets on entrepreneurial intentions: a mediation-moderation study. *Discover Sustainability*, 6(1). <https://doi.org/10.1007/s43621-025-01316-4>
- Jiatong, W., Murad, M., Bajun, F., Tufail, M. S., Mirza, F., & Rafiq, M. (2021). Impact of entrepreneurial education, mindset, and creativity on entrepreneurial intention: Mediating Role of Entrepreneurial Self-Efficacy. *Frontiers in Psychology*, 12, 724440. <https://doi.org/10.3389/fpsyg.2021.724440>
- Jöreskog, K. G. (1971). Statistical analysis of sets of congeneric tests. *Psychometrika*, 36(2), 109–133. <https://doi.org/10.1007/BF02291393>
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
- Lestari, E., & Setiawan, G. T. (2021). The Effect Of Entrepreneurship Education To Student's Entrepreneurial Intention With Self-Efficacy As Mediating Variable, (*Development Research of Management*) *Jurnal Manajemen*, 16(2), 158. <https://doi.org/10.19166/derema.v16i2.3884>
- Li, Y., Cao, K., & Jenatabadi, H. S. (2023). Effect of entrepreneurial education and creativity on entrepreneurial intention in college students: mediating entrepreneurial inspiration, mindset, and self-efficiency. *Frontiers in Psychology*, 14, 1240910. <https://doi.org/10.3389/fpsyg.2023.1240910>
- Lianto, B., Utami, C. W., & Radianto, W. D. (2025). The Impact of Entrepreneurial Education on Entrepreneurial Intention through Self-Efficacy. *Jurnal Ilmiah Manajemen Kesatuan*, 13(6), 4865–4876. <https://doi.org/10.37641/jimkes.v13i6.4097>
- Likert Scale in Social Sciences Research: Problems and Difficulties. (2022). *FWU Journal of Social Sciences*, 89–101. <https://doi.org/10.51709/19951272/winter2022/7>
- Lv, Y., Chen, Y., Sha, Y., Wang, J., An, L., Chen, T., Huang, X., Huang, Y., & Huang, L. (2021). How entrepreneurship education at Universities Influences Entrepreneurial Intention: Mediating effect based on entrepreneurial competence. *Frontiers in Psychology*, 12, 655868. <https://doi.org/10.3389/fpsyg.2021.655868>
- Malathi, M., & Venugopal, P. (2025). Entrepreneurial intention and engagement in entrepreneurship education. *Journal of Innovation and Entrepreneurship*, 14(1). <https://doi.org/10.1186/s13731-025-00524-6>
- Maulani, G. a. F., Fauziah, N., & Mubarak, T. M. S. (2023). The effect of Digital Literacy and E-Commerce toward digital entrepreneurial intention. *Business Innovation & Entrepreneurship Journal*, 5(3), 184–191. <https://doi.org/10.35899/biej.v5i3.691>
- Mitrache, D. (2025, December 1). *The Need For Digital Skills In Shaping The Profile Of The Successful Entrepreneur*. <https://doaj.org/article/8e4cafa1f993416795af6ec7b3bce6f6>

- Muhammed, Y., Dantsoho, M., & Abubakar, A. (2021). The role of perceived social support in the theory of planned behavior in predicting entrepreneurial intention: Evidence from a Nigerian university. *Journal of Global Business Insights*, 6(2), 141–153. <https://doi.org/10.5038/2640-6489.6.2.1162>
- Mukhtar, S., Wardana, L. W., Wibowo, A., & Narmaditya, B. S. (2021). Does entrepreneurship education and culture promote students' entrepreneurial intention? *The mediating role of entrepreneurial mindset*. *Cogent Education*, 8(1). <https://doi.org/10.1080/2331186x.2021.1918849>.
- Mulyono, L. A., Soetjipto, B. E., & Hermawan, A. (2023). The relationship between entrepreneurship education and digital literacy on entrepreneurial intention through Self-Efficacy as an intervening variable. *International Education Trend Issues*, 1(3), 500–515. <https://doi.org/10.56442/ieti.v1i3.338>
- Mustain, M., Murwani, F. D., & Mukhlis, I. M. (2023a). The Effect of Digital Literacy on Entrepreneurial Intention through Entrepreneurial Attitude. *Formosa Journal of Applied Sciences*, 2(12), 3361–3370. <https://doi.org/10.55927/fjas.v2i12.7066>
- Nenzhelele, T. E., Moraka, N. V., & More, K. K. (2016). The impact of practical entrepreneurship project on future entrepreneurial intentions. *Problems and Perspectives in Management*, 14(4), 67–75. [https://doi.org/10.21511/ppm.14\(4\).2016.08](https://doi.org/10.21511/ppm.14(4).2016.08)
- Nikou, S., De Reuver, M., & Kanafi, M. M. (2022). Workplace literacy skills—how information and digital literacy affect adoption of digital technology. *Journal of Documentation*, 78(7), 371–391. <https://doi.org/10.1108/jd-12-2021-0241>
- Niu, X., Niu, Z., Wang, M., & Wu, X. (2022). What are the key drivers to promote entrepreneurial intention of vocational college students? An empirical study based on structural equation modeling. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1021969>
- Onwubuya, U. N., & Odogwu, I. C. (2023). Digital Literacy and Entrepreneurial Intentions of Business Education students in tertiary Institutions. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCES AND MANAGEMENT RESEARCH*, 9(6), 101–112. <https://doi.org/10.56201/ijssmr.v9.no6.2023.pg101.112>
- Ouni, S., & Jarboui, A. (2025). The Link between Perceived Public Support and Entrepreneurial Intention Mediated by Entrepreneurial self-efficacy and Entrepreneurial Climate: Gender as a Moderator. *Public Organization Review*, 25(3), 1631–1654. <https://doi.org/10.1007/s11115-025-00884-3>
- Park, J., & Kim, S. (2025). Entrepreneurial Competencies in the Era of Digital Transformation: A Systematic Literature review. *Digital*, 5(4), 46. <https://doi.org/10.3390/digital5040046>
- Prabawati, A., Rusdarti, R., & Santoso, J. T. B. (2025). Determinants of entrepreneurial intention. *Journal of Economic Education*, 13(1), 51–60. <https://doi.org/10.15294/jeec.v13i1.28339>
- Putra, A. R., & Darmawan, D. (2022). Competitive advantage of MSMEs in terms of technology orientation and entrepreneurship competence. *International*

- Journal of Service Science, Management, Engineering, and Technology*, 2(1), 15–20.
- Robbani, M. B., Muzdalifah, L., Larassaty, A. L., & Sholikhah, A. (2025). The Influence of Digital Literacy, Self-Efficacy, and Social Environment on the Intention to Become an Entrepreneur among Gen-Z in Coastal Areas. *Journal of Educational Management Research*, 4(2), 424–440. <https://doi.org/10.61987/jemr.v4i2.934>
- Sarstedt, M., Ringle, C. M., Cheah, J.-H., Ting, H., Moisescu, O. I., & Radomir, L. (2022). Structural model robustness checks in PLS-SEM. *Tourism Economics*, 28(4), 915–935. <https://doi.org/10.1177/1354816620934580>
- Setyawati, S. M., Rosiana, M., & Fauzi, D. R. (2022). The effect of digital literacy on online entrepreneurial intentions: The moderating role of subjective norms. *International Conference on Sustainable Competitive Advantage 2022*.
- Shatila, K., Aránega, A. Y., Soga, L. R., & Hernández-Lara, A. B. (2025). Digital literacy, digital accessibility, human capital, and entrepreneurial resilience: a case for dynamic business ecosystems. *Journal of Innovation & Knowledge*, 10(3), 100709. <https://doi.org/10.1016/j.jik.2025.100709>
- Soelaiman, L., Keni, K., & Puspitowati, I. (2024). Empowering Entrepreneurial Intentions: Educational Support and Self-Efficacy in MBKM context. *Jurnal Manajemen*, 28(1), 23–44. <https://doi.org/10.24912/jm.v28i1.1760>
- Sun, J., Shi, J., & Zhang, J. (2023). From entrepreneurship education to entrepreneurial intention: Mindset, motivation, and prior exposure. *Frontiers in Psychology*, 14, 954118. <https://doi.org/10.3389/fpsyg.2023.954118>
- Sürücü, L., & Maslakçi, A. (2020). Validity And Reliability In Quantitative Research. *Business and Management Studies an International Journal*, 8(3), 2694–2726. <https://doi.org/10.15295/bmij.v8i3.1540>
- Taherdoost, H. (2016). Validity and reliability of the research instrument; How to test the validation of a Questionnaire/Survey in a research. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3205040>
- Taneja, M., Kiran, R., & Bose, S. C. (2023). Assessing entrepreneurial intentions through experiential learning, entrepreneurial self-efficacy, and entrepreneurial attitude. *Studies in Higher Education*, 49(1), 98–118. <https://doi.org/10.1080/03075079.2023.2223219>
- Tumati, R., & Kumar, J. (2022). Perceived support and entrepreneurial intentions among Omani undergraduate students. *Pressacademia*. <https://doi.org/10.17261/pressacademia.2022.1653>
- Uzkurt, C., Ekmekcioglu, E. B., Ceyhan, S., & Pampal, A. S. (2024). Entrepreneurial self-efficacy as a mediator in the entrepreneurial education-entrepreneurial intention nexus: the moderating role of government-based support and financial concerns. *Entrepreneurship Education*, 8(1), 131–156. <https://doi.org/10.1007/s41959-024-00133-6>
- Wahyuningsih, R. S. H., & Arisnawati. (2021). Determinants of Student's Entrepreneurial Intention: An Empirical study of Entrepreneurial Education and Self-Efficacy as Predictors Variables. *Advances in Economics, Business*

- and Management Research/Advances in Economics, Business and Management Research*, 176. <https://doi.org/10.2991/aer.k.210121.009>
- Wardana, L. W., Narmaditya, B. S., Wibowo, A., Mahendra, A. M., Wibowo, N. A., Harwida, G., & Rohman, A. N. (2020). The impact of entrepreneurship education and students' entrepreneurial mindset: the mediating role of attitude and self-efficacy. *Heliyon*, 6(9), e04922. <https://doi.org/10.1016/j.heliyon.2020.e04922>
- Wardoyo, C., Narmaditya, B. S., Qurrata, V. A., Satrio, Y. D., & Sahid, S. (2024). Are students ready for digital business? Antecedents of entrepreneurial intentions among Indonesian students using a serial mediation. *Social Sciences & Humanities Open*, 11, 101213. <https://doi.org/10.1016/j.ssaho.2024.101213>
- Wu, L., Jiang, S., Wang, X., Yu, L., Wang, Y., & Pan, H. (2022). Entrepreneurship Education and Entrepreneurial Intentions of college students: The mediating role of entrepreneurial Self-Efficacy and the moderating role of entrepreneurial competition experience. *Frontiers in Psychology*, 12, 727826. <https://doi.org/10.3389/fpsyg.2021.727826>
- Ye, Z., & Kang, K. (2025). The impact of Entrepreneurial Self-Efficacy and entrepreneurship on entrepreneurial intention: entrepreneurial attitude as a mediator and entrepreneurship education having a moderate effect. *Sustainability*, 17(10), 4733. <https://doi.org/10.3390/su17104733>
- Yesmin, M. N., Hossain, M. A., Islam, M. S., Rahman, M. M., Jahan, N., & Kim, M. (2024). Entrepreneurial intentions and the role of educational and social support: do the self-efficacy and the theory of planned behavior variables matter? *RAUSP Management Journal*, 59(4), 366–385. <https://doi.org/10.1108/rausp-03-2024-0053>