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INVESTIGATING FINANCIAL KNOWLEDGE DRIVEN ENTREPRENEURIAL INTENTIONS: THE INTERMEDIATION OF FINANCIAL KNOWLEDGE AND CONTINGENCY OF RISK-TAKING PROPENSITY

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Abstract

Entrepreneurial intentions are a crucial determinant of an entrepreneurial activities and business success. This research investigates the impact of financial knowledge on entrepreneurial intentions and the role of implementation of financial knowledge as a mediator and risk-taking propensity as a moderator. Additionally, it is based on the theoretical framework of planned behavior and risk management theory. The quantitative research methodology is used for data collection from the entrepreneurs who actively engage in entrepreneurial activities. The results of this study reveal that entrepreneurs with high level of financial knowledge depicts stronger entrepreneurial intentions, with the significant mediation of financial knowledge application in this relationship. Moreover, the study identifies risk-taking propensity as a moderating factor, indicating that individuals who are bold in taking calculated risk show a stronger positive relationship between financial knowledge and entrepreneurial intentions. These findings highlight the importance of financial literacy in the realm of entrepreneurship, while also highlighting the need for training and development programs that brush-up the skills of entrepreneurs to improve their financial and risk management. For educators, policymakers, and aspiring entrepreneurs, this study provides valuable insights in integrating the comprehensive financial education and assessment of risk tolerance in entrepreneurship training. However, this study has some limitations, for instance, it focuses on aspiring entrepreneurs from diverse sectors without considering the industry-specific dynamics that may influence the entrepreneurial intention. Future research should explore in industry-specific dynamics and also include the cross-cultural comparisons may also provide the comprehensive understanding of these findings.

INTRODUCTION

Over the past few years, entrepreneurship has been crucial in changing the dynamics of economic institutions, academics, and public policy (Aknabi, 2016). Al-Awlaqi et al. (2021) describe entrepreneurs

as economic agents possessing novel ideas that generate employment and offer innovative solutions to develop the economy. In addition, entrepreneurship plays a key role in promoting economic growth and advancement because it provides employment opportunities and stimulates innovation (Doran et al., 2018; Mojica-Howell et al., 2012; Thurik & Wennekers, 2004; Van Stel et al., 2005).

Both developed and developing economies of the contemporary world face various socioeconomic challenges, such as economic recessions, the far-reaching implications of globalization, corruption, inflationary pressures, chronic unemployment, and the necessity of generating income. Entrepreneurship is, in their wake, a dynamic and good thing that generates economic stability. Entrepreneurship generates jobs, propels economic growth, and curbs the negative implications of inflation and unemployment (Soomro et al., 2020).

Even though it is as relevant as ever, only a paltry 3.65% of adults aged 18 to 64 engage in entrepreneurial activities or run new businesses, as indicated by the Total Entrepreneurial Activity (TEA) rate (GEM Pakistan Annual Report, 2019/2020). The figure is much lower than the regional average and that of nations with similar incomes. The global average TEA, on the other hand, stands at 12.81%. Surprisingly, even with this lower entrepreneurial activity rate, Pakistan has a relatively high entrepreneurial intention rate of 27.90%, above the world average of 23.72%. The difference, from 3.65% to 27.90%, between entrepreneurial intention rates and actual entrepreneurial activities can be due to a myriad of reasons. The most prominent among them is a deficiency in financial literacy (Li & Qian, 2019), one of the major movers in turning entrepreneurial intentions into realities.

To acknowledge the numerous opportunities that entrepreneurship has to offer, there is a need to adopt a strategic approach to entrepreneurship learning, particularly in universities (Anwar et al., 2021). Universities have an important role in making students embrace risk-taking and encourage them to engage in entrepreneurial ventures in the future. Risk-taking entrepreneurial students are of pivotal importance in entrepreneurship development (Soomro et al., 2020). Making students embrace an entrepreneurial spirit is necessary because it will ultimately place them in the entrepreneurial sector.

Akanbi (2016) emphasizes entrepreneurship as an entrepreneurial potential-discovery process, risk analysis relating to the involved, and looking for innovative possibilities. Nonetheless, there are several perspectives relating to the role played by financial knowledge in entrepreneurial intention. The current study aims to fill the literature gap regarding the relationship between financial knowledge and entrepreneurial intention. Due to the complex nature of the relationship, the study purposefully considers financial knowledge. The reason behind this is an assumption that financial literacy could have multiple facets whose role in entrepreneurial intention is differential. It also explores financial confidence and risk-taking propensity as mediators and moderators. It finds them as key variables mediating and moderating the process from financial knowledge to entrepreneurial intention.

By critical assessment of the role of financial knowledge in contributing to singular, this study employs a holistic approach in examining determinants that foster an entrepreneurial mindset. This study aims to construct a more robust and comprehensive understanding of the link between financial knowledge and cognitive traits in entrepreneurial intention formation. Such data can help policymakers develop effective programs for promoting entrepreneurship and self-employment and reducing unemployment. In addition, the addition of financial literacy, self-efficacy, and risk-taking propensity allows us to identify key drivers that promote students toward entrepreneurship, which may help in targeted programs for enabling youth entrepreneurship—a major source of employment generation and economic growth for Pakistan. Ultimately, this study advances research on entrepreneurial intention and financial literacy, specifically for Pakistan and other developing nations.

2. Literature Review

Based on the theory of planned behavior (Ajzen, 1991), a person's rational decision-making can be perfectly predicted by their attitudes towards

behavior, subjective norms, and perceived behavioral control. TPB is a widely used theory in many fields (e.g., Ajzen, 1991; Harland et al., 1999). However, it is especially significant in entrepreneurship study, where being an entrepreneur is considered a purposeful action and intention is understood as a cognitive state (Sabah, 2016). It reflects people's perspectives on the challenges they anticipate when starting their business and their emotions and sentiments regarding the outcomes of these challenges (Schlaegel & Koenig, 2014).

Building upon human capital theory (Schultz, 1980) and social cognitive theory (Bandura, 1989, 2018), our proposition suggests that financial education enhances cognition and develops confidence in individuals, accumulating human capital and leading to entrepreneurial intent. (Aboobaker & Renjini, 2020). This emphasizes the significance of acquiring knowledge, skills, and training for entrepreneurial confidence and success (Martin et al., 2013; Aboobaker et al., 2020).

Moreover, concerning the theoretical underpinning of financial literacy, no measurement is available for evaluation. Different measures are employed to assess knowledge and are considered synonymous with financial literacy.

2.1.1 Entrepreneurial Intent

Several scholars have defined the term "intention" in the context of entrepreneurship. Bird (1988) provides a broad definition: "the states of mind of entrepreneurs that focus their attention, experience, and behavior toward a company notion, determine the structure and direction of a business from the start." Krueger (2009) defines it as the cognitive state that exists both temporally and causally as an antecedent to the choice to establish a business.

Several Factors such as entrepreneurial social network (Ruiz-Palomino & Martínez-Cañas, 2021), family education, business background, and experience (Gird & Bagraim, 2008; Van Auken et al., 2006; Guerrero et al., 2006; Hadjimanolis & Poutziouris, 2011; Wu & Rudnák, 2021) have been identified as having a positive influence on Entrepreneurial intent.

Particular abilities positively impact it, such as creativity, emotional intelligence (Zampetakis et al., 2009; Zampetakis et al., 2011), innovativeness, and propensity to take risks (Alshebami & Seraj, 2022). Numerous authors have concluded that the stronger the entrepreneurial attitude, the stronger the entrepreneurial intent (Miranda et al., 2017; Kibler, 2013).

However, lack of capital (Giacomin et al., 2010; Pruett et al., 2009), entrepreneurial education (World Bank, 2008), complicated tax regulation, high operating risk, and lack of knowledge (Pruett et al., 2009) act as the major obstacles. These obstacles act as barriers to the conversion of entrepreneurial intent to entrepreneurship.

2.1.2 Financial Knowledge

According to the World Bank (2012), financial literacy is a mix of awareness, knowledge, skill, attitude, and behavior required to make wise financial decisions and, ultimately, attain individual financial wellness. Even though financial literacy is now widely acknowledged as a critical policy for governments to overcome economic instability and give people the power to make wise decisions (Lazarus, 2020), there is a debate in academic circles about how to define and implement a standardized measure of financial literacy. This debate persists despite the importance of having such a measure to evaluate financial education programs and explore their impact on outcomes. (Huston, 2010; Fernandes et al., 2014)

Some researchers consider actual financial knowledge is financial literacy, while others view it from a wider angle that encompasses financial knowledge, attitudes, and behaviors. (Potrich et al., 2015; Warmath & Zimmerman, 2019). However, the terms financial education, financial knowledge, financial literacy (Huston, 2010; Gilenko & Chernova, 2021), financial Awareness (Ali et al., 2021), and financial capability (Kempson et al., 2006) are frequently used interchangeably in both academic literature and popular media.

Financial literacy can be attained in several ways, not all of which involve financial knowledge. As important, if not more so, than knowledge of acquiring and using money is confidence in one's ability to manage money (Warmath & Zimmerman, 2019). Financial knowledge plays a crucial role in influencing financial behavior (Xu et al., 2022; Babiarz & Robb, 2014; Woodyard et al., 2017),

Attitudes (Atmaningrum et al., 2021) and decisions (Parker et al., 2012).

In a subsequent study of American homes with 28,146 participants, Allgood and Walstad established that financial literacy, and subsequently financial decisions and behavior, are influenced by financial knowledge and perception. Furthermore, financial knowledge has been shown to influence both profitable investment selections (Clark et al., 2014b) and the establishment of retirement savings habits (Alshebami & Aldhyani, 2022).

Within the literature, an ongoing debate revolves around the significance attributed to financial knowledge within the broader concept of financial literacy (Sarwar et al., 2024). Despite this dispute, there is considerable agreement that, while financial knowledge is not the only component, it plays an important part in financial literacy, with widespread agreement that it is vital. For this study, the importance of addressing the multidimensional nature of financial literacy is recognized. However, the primary focus of this study will be on a specific dimension of financial literacy and financial knowledge.

2.2 Model and Hypothesis Development

This study has framed three hypotheses and the details are provided in upcoming sections.

2.2.1 Financial Knowledge and Entrepreneurial Intent

In line with Abraham Maslow's standpoint that the most precious 100 people to bring into a descending society are entrepreneurs, it becomes apparent that entrepreneurship plays a significant part in the evolution of society (Nelson, 1977). Entrepreneurship is a dynamic process that requires making critical decisions every day to perform day-to-day tasks. Entrepreneurial activities need entrepreneurs to bridge the skill gaps and market shortages since a lack of financial knowledge, capabilities, and management know-how restricts the entrepreneur's success. Entrepreneurs with strong financial knowledge, critical for financial soundness, investment, and decision-making, are better equipped to manage resources and make well-informed decisions (Clark et al., 2014b). Studies by Oseifuah (2010a) suggest that strong financial knowledge significantly enhances the capabilities of young entrepreneurs. Furthermore, entrepreneurial objectives have been found to rely more heavily on knowledge than any other attribute.

Corbet (2007) highlights that people require background knowledge to recognize opportunities seamlessly. Individuals with sufficient financial knowledge are more financially prepared (Barua et al., 2017), more likely to be able to see a good business opportunity (Corbett, 2007), and will have the necessary knowledge to implement the opportunity. As a result, an individual is more inclined to launch a business.

Thus, we can hypothesize:

H_1: Financial knowledge significantly and positively influences the entrepreneurial intent

2.2.2 The Mediating Role of Financial Confidence

Financial Confidence includes exhibiting the certainty necessary to make consequential financial decisions grounded in an individual's trust in their financial knowledge and understanding (palameta et al., 2016). It plays an integral role in decision-making, as individuals with higher levels of financial confidence tend to be more capable of making sound financial choices (Atlas et al., 2019; Stolper, 2018; Navajas et al., 2017).

This study defines financial overconfidence as having high self-rated knowledge and financial underconfidence as having low self-rated knowledge (Angrisani & Casanova, 2019). Overconfidence or underconfidence is more common when there is low predictability of the outcome and feedback is not immediate (Fischhoff et al., 1977). Under these circumstances, Individuals are more likely to exhibit tendencies of either overestimating their financial ability (overconfidence) or underestimating their financial ability (underconfidence).

While empirical validation on the mediating influence of financial confidence on entrepreneurial intent and financial knowledge is limited, Ramalho and Forte (2019) discovered a relationship between financial confidence and test scores; as financial knowledge test scores increase, individuals tend to exhibit higher levels of financial confidence in their financial decision-making. Thus, a person's confidence level correlates with their comprehension

of the matter (Puspita & Isnalita, 2019). This implies that individuals who retain a knowledge of finance tend to exhibit high levels of financial confidence.

Resources serve as the drivers of sustainability (Sarwar et al., 2023). Among various resources, financial confidence is a strong motivator for people to pursue entrepreneurship, as people with higher confidence tend to consider their actions more likely to lead to success than those lacking confidence (Salamouris, 2013). Consequently, confidence can serve as a link between financial knowledge and Entrepreneurial intent, as individuals with a firm grasp of financial knowledge tend to have advanced situations of confidence in their financial capacities, potentially making them more inclined to take risks and pursue entrepreneurship (Shaukat et al., 2024).

Thus, Financial knowledge constantly correlates to financial confidence (Ruiz-Dotras & Lladós-Masllorens, 2022; Puspita & Isnalita, 2019), and individuals with higher confidence are more predisposed to develop entrepreneurial intentions (Jiang & Capra, 2015; Pirinsky, 2013). This leads us to the following hypothesis:

H_2: Financial confidence significantly mediates the relationship between financial knowledge and Entrepreneurial Intent

2.2.3 The moderating behavior of risk-taking propensity

Risk-taking propensity is frequently applied to the tendency to take risks depending on the awaited liability of success, considering relative benefits and consequences (Brockhaus, 1980b). Given this, it is evident that many studies have concluded that people with higher financial knowledge tend to embrace risk more readily, while those with lower financial knowledge are more risk-averse (Bajo et al., 2015; Mudzingiri, 2021; Haris et al., 2025; Sarwar & Khan, 2022). Additionally, financial knowledge can lead individuals to be riskier in certain financial matters (Kawamura et al., 2021). Conversely, those with higher financial knowledge make more informed economic decisions and are less likely to face negative consequences. (Hastings et al., 2013).

Although there is no direct exploration of the moderating part of risk-taking propensity on financial confidence and entrepreneurial intent, research at an applied college in Saudi Arabia postulates a significant correlation between risk propensity and entrepreneurial intention (Alshebami & Seraj, 2022). One more study containing 600 scholars from Romanian universities discovered that risk propensity is important in determining entrepreneurial intentions, particularly among those who had taken entrepreneurship courses (Popescu et al., 2016). Another study among Pakistani business graduates found that a propensity for risk-taking boosts entrepreneurial pretensions and pushes young graduates to develop start-ups (Shahzad et al., 2021). Similarly, Schumpeter (1983) concludes that the tendency and willingness to take risks are the factors that separate a manager from an entrepreneur.

Thus, previous exploration shows a substantial positive effect of financial knowledge (Gustafsson & Omark, 2015; Li et al., 2020; Noviarini et al., 2021; Bajo et al., 2015; Mudzingiri, 2021) and a high risk-taking propensity significantly enhances entrepreneurial intent (Zollo et al., 2017; Popescu et al., 2016; Shahzad et al., 2021; Alshebami & Seraj, 2022).

Thus, we can hypothesize that:

H_3: Risk-taking propensity moderates the relationship between financial knowledge and Entrepreneurial Intent.

2.3 Hypothesized Model

In the model, Entrepreneurial intent is the dependent variable, financial knowledge is the independent variable, risk-taking propensity is the moderator, and financial confidence is the mediator. CGPA, age, gender, major field of study, and family occupation are present as demographic and academic factors, respectively.

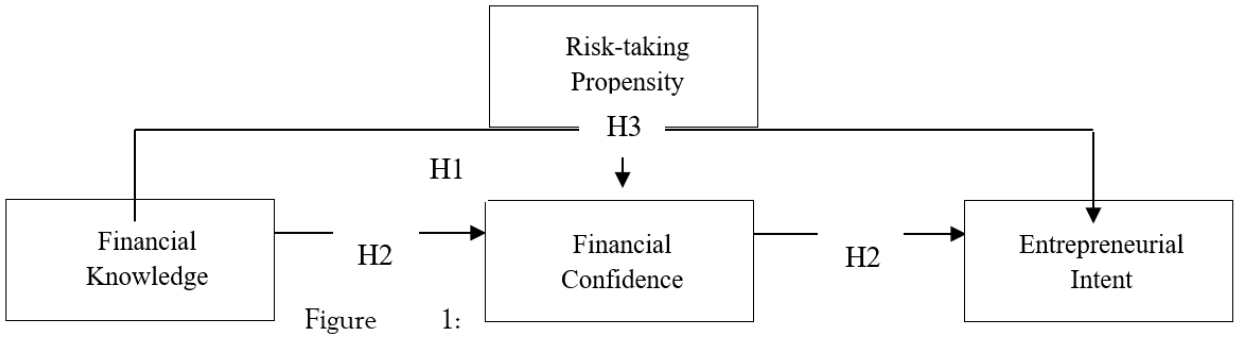


Figure 1:

Figure 1: Research Framework

3. Methodology

3.1 Population and Sampling

This research employed a quantitative approach, and a structured questionnaire was used to methodically collect primary data from the respondents following Sarwar et al. (2025). Further, we employed convenience sampling, a non-probability technique, for reaching respondents, which is frequently used in management studies (Gulzar et al., 2024). The data was collected both in person and by sending electronically to 190 individuals. The survey was distributed among undergraduate university students in the Lahore region. To provide a varied representation of students, universities from the public and private sectors were included. Undergraduate students were specifically considered for this study as, at that stage, they are pushed to decide whether they want to start their career through a job or pursue entrepreneurship in the future.

3.2 Measurement and Scaling

This section presents the scale items used and brief discussion of their sources.

3.2.1 Financial Knowledge

Building on the previous work by numerous authors (Molina-García et al., 2023b; Skagerlund et al., 2018; Atkinson & Messy, 2012; Lusardi & Mitchell, 2007, 2008, 2014; van Rooij et al., 2011a, 2012; Houts & Knoll, 2019, 2012; Johan et al., 2020), we adopted an eight-question financial knowledge questionnaire to measure the financial knowledge of undergraduates.

The first four questions focused on foundational financial knowledge. The last four questions deal with more complex financial concepts, including the relationship between interest rates and bond prices, perceptions of risk in stock investments, and participants' awareness of asset fluctuation.

Financial knowledge was measured on four response anchors. Of these, three questions had substantial answers, and the other five had "do not know" and "prefer not to say" options. This approach was adopted so that respondents couldn't pick a response, making a proper difference among various financial knowledge levels. (Lusardi & Mitchell, 2011). The overall number of correct responses is considered a gauge of financial knowledge. Higher scores on the tests are a predictor of greater financial literacy (Potrich et al., 2016).

3.2.2 Risk Taking Propensity

In line with (Riepe et al., 2020 Zhang et al., 2018 and Zhang et al., 2015), our research used a self-reported questionnaire of four questions given to undergraduate participants. These questions also involved questions such as "I am willing to risk losing money when there is also a possibility of gaining money," the respondents answered on a Likert scale of 1 to 5. This is more feasible than laboratory-based tests (D. C. Zhang et al., 2018) like BART (Cartwright, 1971) and the Choice dilemma questionnaire (Lejuez et al., 2002).

3.2.3 Entrepreneurial Intent

Undergraduate Entrepreneurial intention is quantified using the Entrepreneurial Intent Questionnaire (EIQ) that has been utilized in many studies (Liñán & Chen, 2009; Rueda et al., 2015; Paço et al., 2011; Lee-Ross, 2017). Each question is evaluated using a Likert scale ranging from 1 to 5.

The higher the score, the higher the entrepreneurial intent.

3.2.4 Financial Confidence

To measure financial confidence, undergraduates were asked, "On a scale of 1 to 5, how would you assess your financial knowledge?". The questions used have been adapted from reputable studies (Stolper & Walter, 2017; Tang & Baker, 2016). The score ranges from 3 to 15. The higher the score, the more confident the individual (Angrisani & Casanova, 2019).

Table 1: Description of items and sources

Construct	Items	References
Financial Knowledge	"Suppose you had $100 in a savings account, and the interest rate was 2% yearly. After 5 years, how much do you think you would have in the account if you left the money to grow?"	Lusardi & Mitchell, 2007, 2008, 2014
	"Assume a friend inherits $10,000 today and his sibling inherits $10,000, but 3 years from now. Who is richer today because of the inheritance?"	
	"A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less."	
	"Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?"	
	"Buying a single company's stock usually provides a safer return than a stock mutual fund."	
	"Normally, which asset described below displays the highest fluctuations over time:"	
	"When an investor spreads his or her money among different assets, does the risk of losing a lot of money:"	
	"If interest rates rise, what will typically happen to bond prices?"	
Financial Confidence	"Taking risks is an important part of my life."	Stolper & Walter, 2017; Tang & Baker, 2016
	"I am a believer in taking chances."	
	"I commonly make risky decisions."	
Risk-taking propensity	"I focus more on the positive outcomes of risk rather than negative ones."	Riepe et al., 2020; Zhang et al., 2018; P. Zhang et al., 2015)
	"I am ready to do anything to be an entrepreneur."	
	"My professional goal is to become an entrepreneur."	
	"I will make every effort to start and run my own firm."	
Entrepreneurial Intent	"I have the firm intention to start a firm someday."	Liñán & Chen, 2009; Paço et al., 2011; Lee-
	"I am good at basic financial concepts such as inflation, compound	

	interest diversification etc."	Ross, (2017)
	"I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses."	
	"I am pretty good at math."	

Table 2: Scale Item Count

Construct	No. of Items	Sources
Financial Knowledge	08	Lusardi & Mitchell, 2007, 2008, 2014
Entrepreneurial Intent	04	Liñán & Chen, 2009; Paço et al., 2011; Lee-Ross, (2017)
Financial Confidence	03	Stolper & Walter, 2017; Tang & Baker, 2016
Risk-taking propensity	04	Riepe et al., 2020; Zhang et al., 2018; P. Zhang et al., 2015)
Total Items	26	

3.3 Data Collection

A total of 190 students from various universities in Pakistan who were enrolled in undergraduate programs in non-business-related subjects (international relations, pharmacy, and law) as well as business-related subjects (accounting, business administration, finance, and economics) were given the survey. Data gathering was conducted through coordinated efforts across multiple universities to provide a varied sample.

A close-ended questionnaire was used to collect data. The questionnaire contains two sections.

The survey initially gathers demographic information, including age, gender, CGPA, and major field of study. The subsequent section comprises four subsections evaluating respondents' Risk risk-taking propensity (4 items), Entrepreneurial Intent (4 items), Financial Confidence (3 items), and Financial Knowledge (8 Items). Using a 5-point scale, respondents express their views on various statements ranging from 1 to disagree to 5 to disagree strongly strongly. However, financial knowledge is specifically evaluated through multiple-choice questions, offering four options for participants to choose from. The questionnaire contains a total of nineteen questions.

4. Data Analysis

Data analysis was done using Excel and SPSS, which are commonly known to handle empirical data effectively in the social sciences. Data cleaning procedures were first done, including replacing missing financial knowledge scores with the minimum value score (1) to maintain consistency without overestimating the findings. Descriptive statistics were then generated to give summaries of central tendencies and variability of dependent and independent variables. Pearson correlation coefficients were calculated in order to test linear relationships, while covariance analysis provided a simple measure of the co-movements of variables. A one-way ANOVA (Analysis of Variance) was used to test the effects of predictors on entrepreneurial intention. The method is commonly used in behavioral studies to test means across groups and identify statistical significance (Field, 2013).

Descriptive Statistic

Descriptive statistics were calculated for all key study variables and relevant demographic characteristics, including age, gender, CGPA, and major field of study.

Table 3: Descriptive Statistics

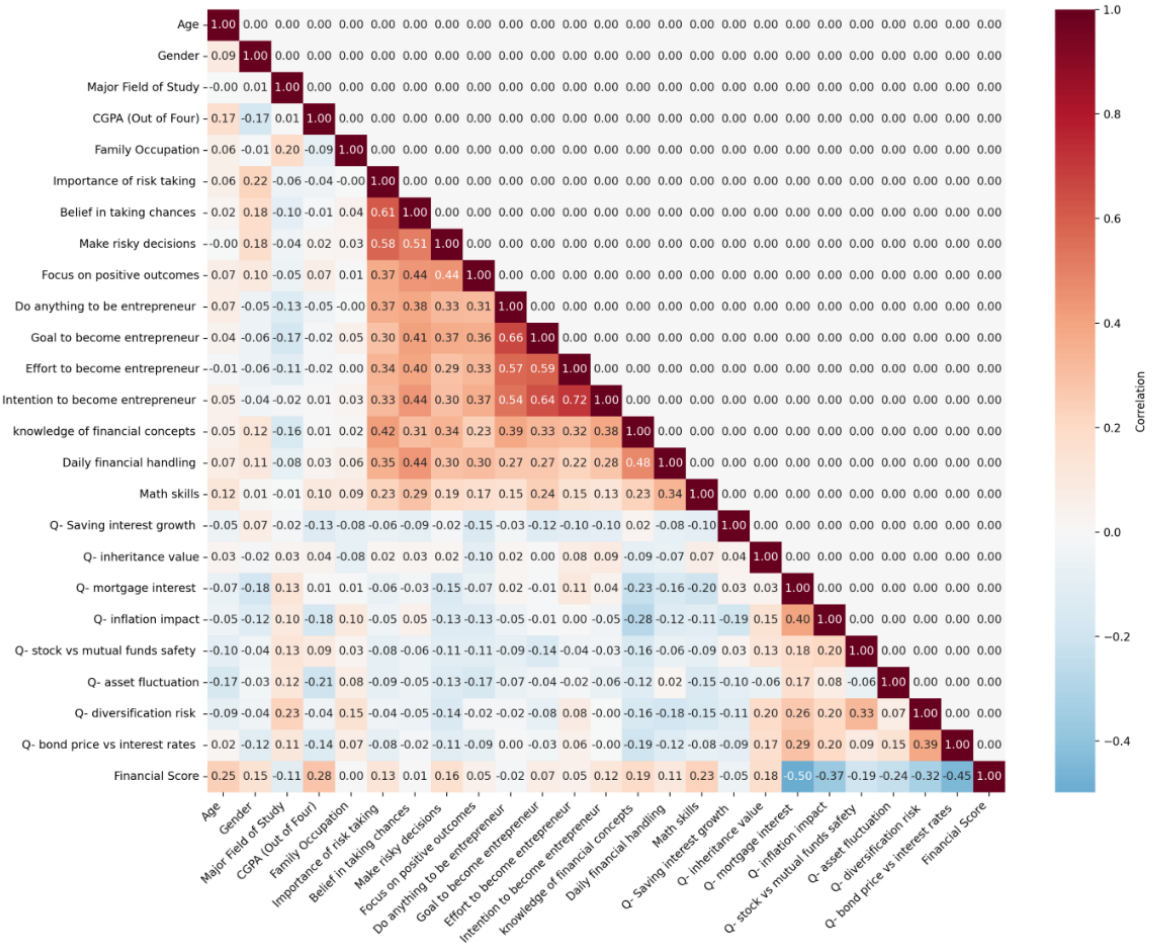
Element	Mean	Median	Mode	Standard Deviation	Standard Error
Age	21.25	21	22	2.03	0.14
Major Field of Study	1.31	1	1	0.46	0.03
CGPA	3.26	3.3	3.4	0.38	0.03
Family Occupation	1.89	2	1	0.97	0.07
Importance of Risk-Taking	3.85	4	5	1.11	0.08
Belief in Taking Chances	3.99	4	4	0.95	0.07
Make risky decisions	3.50	4	4	1.13	0.08
Focus on positive outcomes	3.65	4	5	1.15	0.08
Do anything to be an entrepreneur	3.59	4	3	1.14	0.08
Goal to become an entrepreneur	3.65	4	4	1.14	0.08
Efforts to become an entrepreneur	3.82	4	5	1.09	0.08
Intention to become an entrepreneur	3.82	4	5	1.19	0.08
knowledge of financial concepts	3.41	4	4	1.16	0.08
Daily financial handling	3.55	4	4	1.09	0.08
Math skills	3.69	4	4	1.16	0.08
Q- Saving interest growth	2.14	2	2	0.89	0.06
Q- inheritance value	2.45	3	3	1.14	0.08
Q- mortgage interest	2.64	2	1	1.71	0.12
Q- inflation impact	2.50	2	2	1.27	0.09
Q- stock vs mutual funds safety	2.37	2	2	1.45	0.10
Q- asset fluctuation	2.23	2	2	0.81	0.06
Q- diversification risk	2.27	2	2	1.22	0.09
Q- bond price vs interest rates	1.98	2	1	0.97	0.07
Financial Score	3.86	3	3	2.32	0.16

The descriptive data show that the participants are primarily young people, with a mean age of 21.25 years, and that they have a strong goal to become entrepreneurs, as demonstrated by high mean scores on entrepreneurial aspirations (3.65), effort (3.82), and intent (3.82). Furthermore, they have a moderate to high risk-taking tendency, as demonstrated by their self-perceptions of risk acceptance (3.99) and the importance of risk valuation (3.85), indicating psychological readiness for entrepreneurial ventures. Although self-reported financial confidence is relatively high, as evidenced by daily money management (3.55), mathematical ability (3.69), and perceived financial competence (3.41), objective financial literacy is substantially lower, with most variables suggesting averages of less than 2.6 out of 5. This mismatch lends credence to the theory that financial confidence may mediate the association between financial knowledge and innovative ambition since individuals may believe they are competent in handling finances while having inadequate objective knowledge. Furthermore, the consistently high scores on risk-related measures indicate that risk-taking propensity may moderate this link, potentially increasing the influence of financial knowledge on the entrepreneurial desire of individuals who are more comfortable with risk.

4.2 Correlation and Covariance Matrix

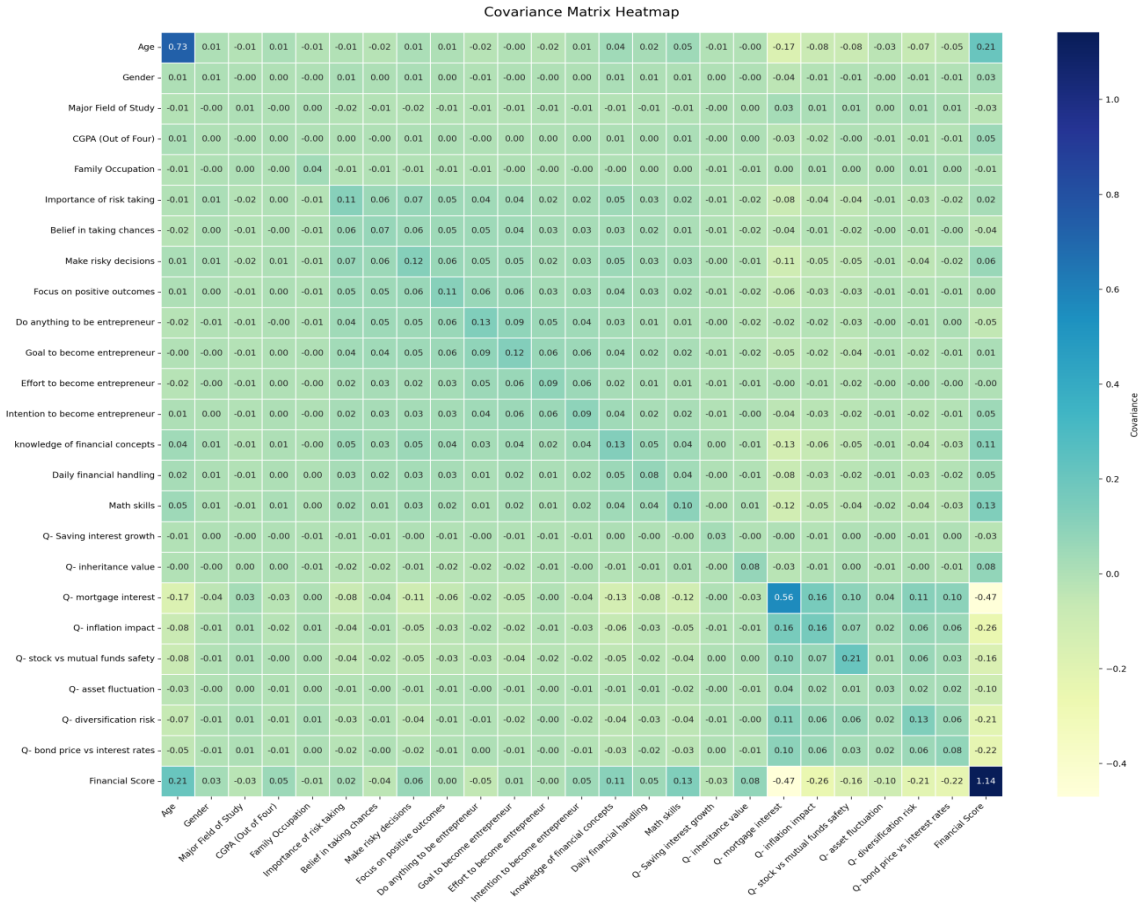
The correlation matrix shows several significant correlations between the variables in the dataset, particularly those regarding entrepreneurial intention, financial understanding, and risk-taking inclination.

Figure 2 : Correlation Matrix



The entrepreneurial intention has a strong positive connection with related motivational factors such as "effort to become an entrepreneur" (r = 0.72) and "goal to become an entrepreneur" (r = 0.66), indicating that entrepreneurial intention assessments are internally consistent. Furthermore, risk-taking factors are substantially connected with one another. For example, "Belief in taking chances" and "Make risky decisions" correlate 0.58, indicating a consistent pattern in respondents' risk attitudes. The correlation between the objective measure "Financial Score" and entrepreneurial intention is comparatively weaker (r = 0.12); however, its stronger association with variables related to financial confidence supports the hypothesis that confidence, rather than knowledge, maybe a stronger direct predictor of entrepreneurial intention. Some objective financial metrics (e.g., Q-mortgage interest) exhibit modest negative correlations with entrepreneurial factors, suggesting that increased financial knowledge causes caution—thereby supporting the moderating influence of risk-taking tendency.

Figure 3: Covariance Matrix



The covariance matrix gives scale-sensitive information regarding intercorrelations between variables, which confirms patterns in the correlation matrix. The high correlation between related variables such as "Effort to become an entrepreneur" and "Intention to become an entrepreneur" (0.96) confirms their substantial relationship in absolute terms. Similarly, risk-taking items such as "Belief in taking chances" and "Make risky decisions" have a large correlation, implying that an increase in another frequently accompanies an increase in one. Similarly, money knowledge and confidence-based items such as "Math skills" and "Daily financial handling" (0.34) show a high correlation, suggesting that these skills are often associated. However, objective financial knowledge items such as "Q-mortgage interest" and "Financial Score" have negative covariances with some entrepreneurial factors (e.g., -0.47), supporting the idea that more financial awareness may temper over-optimism in entrepreneurial aspirations. The covariance matrix accounts for the absolute co-movement of important variables, demonstrating how self-beliefs and risk orientation develop concurrently with entrepreneurial inclinations. However, objective information plays a more subtle and indirect effect.

4.3. ANOVA Results

Table 4: ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	67290.23826	24	2803.759927	1909.711785	0	1.519504
Within Groups	7261.512815	4946	1.468158677			
Total	74551.75107	4970				

The ANOVA test results reveal the statistical significance of variations between groups in the dataset for entrepreneurial intention and its determinants. The sum of squares (SS) across groups is 67,290.24. However, the SS within groups is 7,261.51, showing that most of the variation in the dependent variable may be explained by differences between groups rather than random error. With 24 degrees of freedom (df) saved for between-group analysis and 4,946 df remaining for within-group analysis, the computed F-value is 1909.71, which is much higher than the F-critical value of 1.5195. The findings strongly support significant differences between the independent variables—financial knowledge, confidence, and risk-taking propensity—and the entrepreneurial intention outcome. This is to say that these characteristics do not have the same influence on entrepreneurial intention for all people; instead, the variations in group means are significant enough to reject the null hypothesis of no difference. These findings are consistent with the expected study model, confirming the hypothesis that financial knowledge and risk-related qualities are important in predicting entrepreneurial ambition.

5. Results & Discussion

The findings observed in this study are consistent with previous research, which found that students' entrepreneurial intention is strongly influenced by their financial knowledge (Li & Qian, 2019; Mitchell & Lusardi, 2015; Oseifuah, 2010a). It also validates the findings of Barua et al. (2017) and Corbett (2007) that financially more conscious people are better placed to identify and seize business opportunities. This provides evidence that financial knowledge contributes to growth and is a valuable tool for resource management (Clark et al., 2014b).

The results also support the second hypothesis, which is that the association between financial knowledge and entrepreneurial intention is mediated by financial confidence. This is consistent with the findings of Salamouris (2013), Puspita and Isnalita (2019), and Palameta et al. (2016), who believe that self-confidence in the ability to manage finances has a very significant influence on the decision-making process. In this situation, confidence is the link between knowing what to do and carrying it out. As Ruiz-Dotras and Lladós-Masllorens (2022) and Pirinsky (2013) also pointed out, those who exhibited a high degree of self-confidence in their financial knowledge were more competent and showed a stronger tendency towards entrepreneurial ventures. The third hypothesis, which tested risk-taking tendency as a moderator, was likewise confirmed. As shown by previous research, students with a higher level of risk tolerance had more entrepreneurial inclinations, even in uncertain settings (Soomro et al., 2020; Alshebami & Seraj, 2022).

The findings support the Theory of Planned Behavior (Ajzen, 1991), which also underpinned this research. In addition, it was found that individuals with knowledge of finances and self-confidence but lacking the risk tolerance to be effective were less likely to convert intentions into concrete behaviors. Risk-taking is, hence, a critical cognitive element that enables or constrains the impact of financial knowledge on entrepreneurial intentions.

Furthermore, the evidence conforms to the human capital theory (Schultz, 1980) and the social cognitive theory (Bandura, 1989, 2018). The two theories posit the role of acquired knowledge and people's perception in determining the outcome of behavior—i.e., entrepreneurial intentions. The evidence conforms to Aboobaker and Renjini's (2020) argument that education programs and skill acquisition, particularly financial literacy, can raise internal abilities and build future confidence, resulting in greater entrepreneurial motivation.

These results also account for the difference in GEM Pakistan (2019/2020), where entrepreneurial intention was significantly higher than entrepreneurial action. Even though students have entrepreneurial intentions, possibly a lack of financial knowledge, low self-efficacy, or risk aversion prevents them from acting upon their intentions.

6. Conclusion

Entrepreneurship is a significant economic growth and development driver, bringing job opportunities and actively mitigating the negative consequences of inflation and unemployment (Soomro et al., 2020). A large entrepreneurial aspiration gap exists among youths compared to actual entrepreneurship. This study shows that, although they are usually neglected, financial information is a key determinant of

entrepreneurial intention. By invoking the use of human capital theory and the Theory of Planned Behavior, this study hypothesizes that financial knowledge affects entrepreneurial intention directly and indirectly via higher financial confidence. Moreover, how risk-taking propensity acts as a moderator offers the intricate interactions between cognitive characteristics that affect entrepreneurial behavior. By mapping the cognitive and psychological characteristics of the group, the research provides valuable insights into how these characteristics can be a bridge or an obstacle for intention-action conversion. These findings have the potential to inform governmental agencies, development organizations, and educational institutions on how to enhance their decision-making. First, schools must include real-world financial education as part of the curriculum, for example, courses on building financial confidence and decision-making in uncertainty. Such education programs enable students to become better informed and psychologically empowered to initiate their enterprises. Second, there must be collaborative efforts between the government and private sectors to enhance financial literacy programs, with a specific focus on underserved and underrepresented individuals. Financial programs can bridge entrepreneurial intention and action. Third, coaching and mentoring programs should be designed to pair potential entrepreneurs with successful mentors who can provide inspiration and support. This would eliminate the fear of failure and enhance financial confidence. Lastly, entrepreneurship incubators should offer settings that encourage rational risk-taking by offering resources, guidance, and positive criticism.

6.1 Limitation and future recommendation

The sample size is relatively small; larger and more heterogeneous samples are needed to make the conclusions more generalizable. In addition, the research was limited to Lahore, a city with good resource access and education, and therefore, the applicability of the findings would have been limited to other settings. Cross-national and longitudinal research in the future would be helpful to explore how time frames and geographical locations influence the relationship between entrepreneurial intention and financial knowledge. Further research into the cognitive factors influencing entrepreneurial intention is also necessary to provide a more complex understanding that may direct educators and politicians. Finally, future research studies should examine geographical and gender-related differences. We can move towards economic growth and entrepreneurship by focusing on these.

REFERENCES

Aboobaker, N., & D, R. (2020b). Human capital and entrepreneurial intentions: do entrepreneurship education and training provided by universities add value? On The Horizon, 28(2), 73–83. https://doi.org/10.1108/oth-11-2019-0077

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

Al-Awlaqi, M. A., Aamer, A. M., & Habtoor, N. (2021b). The effect of entrepreneurship training on entrepreneurial orientation: Evidence from a regression discontinuity design on micro-sized businesses. International Journal of Management Education, 19(1), 100267. https://doi.org/10.1016/j.ijme.2018.11.003

Alshebami, A. S., & Aldhyani, T. H. H. (2022). The Interplay of Social Influence, Financial Literacy, and Saving Behaviour among Saudi Youth and the Moderating Effect of Self-Control. Sustainability, 14(14), 8780. https://doi.org/10.3390/su14148780

Alshebami, A. S., & Seraj, A. H. A. (2022). Exploring the influence of potential entrepreneurs' personality traits on small venture creation: the case of Saudi Arabia. Frontiers in Psychology, 13, 885980. https://doi.org/10.3389/fpsyg.2022.885980

Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. Journal of Management, 27(6), 755–775. https://doi.org/10.1177/014920630102700609

Angrisani, M., & Casanova, M. (2019). What you think you know can hurt you: under/over confidence in financial knowledge and preparedness for retirement. Journal of Pension Economics & Finance, 20(4), 516–531. https://doi.org/10.1017/s1474747219000131

Atlas, S. A., Lu, J., Micu, P. D., & Porto, N. (2019b). Financial knowledge, confidence, credit use, and financial satisfaction. Journal of Financial Counseling and Planning, 30(2), 175–190. https://doi.org/10.1891/1052-3073.30.2.175

Atmaningrum, S., Kanto, D. S., & Kisman, Z. (2021). Investment Decisions: The results of Knowledge, Income, and Self-Control. Journal of Economics and Business, 4(1), 100-112. https://doi.org/10.31014/aior.1992.04.01.324

Babiarz, P., & Robb, C. A. (2013). Financial literacy and emergency saving. Journal of Family and Economic Issues, 35(1), 40–50. https://doi.org/10.1007/s10834-013-9369-9

Bajo, E., Barbi, M., & Sandri, S. (2015). Financial literacy, households' investment behavior, and risk propensity. Journal of Financial Management, Markets and Institutions, (1), 157-174. https://doi.org/10.12831/80534

Bandura, A. (1989). Human agency in social cognitive theory. American Psychologist, 44(9), 1175–1184. https://doi.org/10.1037/0003-066x.44.9.1175

Bandura, A. (2018). Toward a psychology of human agency: pathways and reflections. Perspectives on Psychological Science, 13(2), 130–136. https://doi.org/10.1177/1745691617699280

Barua, R., Koh, B., & Mitchell, O. S. (2017). Does financial education enhance financial preparedness? Evidence from a natural experiment in Singapore. Journal of Pension Economics & Finance, 17(3), 254–277. https://doi.org/10.1017/s1474747217000312

Bird, B. (1988). Implementing Entrepreneurial Ideas: The case for intention. Academy of Management Review, 13(3), 442–453. https://doi.org/10.5465/amr.1988.4306970

Brockhaus, R. H. (1980). Risk taking propensity of entrepreneurs. Academy of Management Journal, 23(3), 509–520. https://doi.org/10.2307/255515

Cartwright, D. (1971). Risk taking by individuals and groups: An assessment of research employing choice dilemmas. Journal of Personality and Social Psychology, 20(3), 361–378. https://doi.org/10.1037/h0031912

Corbett, A. C. (2007). Learning asymmetries and the discovery of entrepreneurial opportunities. Journal of Business Venturing, 22(1), 97–118. https://doi.org/10.1016/j.jbusvent.2005.10.001

Defoe, I. N., Dubas, J. S., & Romer, D. (2019). Heightened Adolescent Risk-Taking? Insights from lab studies on age differences in Decision-Making. Policy Insights From the Behavioral and Brain Sciences, 6(1), 56–63. https://doi.org/10.1177/2372732218801037

Doran, J., McCarthy, N., & O'Connor, M. (2018). The role of entrepreneurship in stimulating economic growth in developed and developing countries. Cogent Economics & Finance, 6(1), 1442093. https://doi.org/10.1080/23322039.2018.1442093

Fayolle, A., Kyrö, P., & Liñán, F. (2015b). Validating a theory of planned behavior questionnaire to measure entrepreneurial intentions. Developing, shaping and growing entrepreneurship (pp. 60–78). Edward Elgar Publishing.

Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (n.d.). Financial Literacy, Financial Education, and Downstream Financial Behaviors. Management Science, 60(8), 1861–1883. https://doi.org/10.1287/mnsc.2013.1849

Field, A. (2017). Discovering statistics using SPSS: Book Plus Code for E Version of Text.

Fischhoff, B., Slovic, P., & Lichtenstein, S. (1977). Knowing with certainty: The appropriateness of extreme confidence. Journal of Experimental Psychology. Human Perception and Performance, 3(4), 552–564. https://doi.org/10.1037/0096-1523.3.4.552

Giacomin, O., Janssen, F., Pruett, M., Shinnar, R. S., Llopis, F., & Toney, B. (2010). Entrepreneurial intentions, motivations and barriers: Differences among American, Asian and European students. International Entrepreneurship and Management Journal, 7(2), 219–238. https://doi.org/10.1007/s11365-010-0155-y

Gilenko, E., & Chernova, A. (2021b). Saving behavior and financial literacy of Russian high school students: An application of a copula-based bivariate probit-regression approach. Children and Youth Services Review, 127, 106122. https://doi.org/10.1016/j.childyouth.2021.106122

Gird, A., & Bagraim, J. J. (2008). The Theory of Planned Behaviour as predictor of entrepreneurial Intent amongst Final-Year University Students. South African Journal of Psychology, 38(4), 711–724. https://doi.org/10.1177/008124630803800410

Guerrero, M., Rialp, J., & Urbano, D. (2006). The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. International Entrepreneurship and Management Journal, 4(1), 35–50. https://doi.org/10.1007/s11365-006-0032-x

Gulzar, S., Sarwar, U., Sattar, S., Usman, M., & Quibtia, M. (2024). Tax Audit, Tax Penalty, Religiosity and Tax Compliance. Journal of Asian Development Studies, 13(3), 776-79

Gustafsson, C. (2015). Brand loyalty. The Wiley Blackwell Encyclopedia of Consumption and Consumer Studies, 1–2. https://doi.org/10.1002/9781118989463.wbeccs030

Hadjimanolis, A., & Poutziouris, P. (2011). Family business background, perceptions of barriers, and entrepreneurial intentions in Cyprus. International Journal of Entrepreneurial Venturing, 3(2), 168. https://doi.org/10.1504/ijev.2011.039339

Haris, M., Ahmad, M. A., Hussain, S., Sarwar, U., Zafar, H., & Khan, M. B. (2025). Stimulating Online Purchase Intentions Through Digitalization: Intermediation of Perceptions and Electronic Word of Mouth in Fashion E-commerce. Journal of Asian Development Studies, 14(1), 1520–1538.

Harland, P., Staats, H., & Wilke, H. a. M. (1999). Explaining proenvironmental intention and behavior by personal norms and the theory of planned behavior1. Journal of Applied Social Psychology, 29(12), 2505–2528. https://doi.org/10.1111/j.1559-1816.1999.tb00123.x

Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial literacy, financial education, and economic outcomes. Annual Review of Economics, 5(1), 347–373. https://doi.org/10.1146/annurev-economics-082312-125807

Hawkins, J. (2015). Personality traits and types: Perceptions, gender differences and impact on behavior.

Houts, C. R., & Knoll, M. a. Z. (2019). The Financial Knowledge Scale: new analyses, findings, and development of a short form. Journal of Consumer Affairs, 54(2), 775–800. https://doi.org/10.1111/joca.12288

Huston, S. J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296–316. https://doi.org/10.1111/j.1745-6606.2010.01170.x

Johan, I., Rowlingson, K., & Appleyard, L. (2020). The effect of personal finance education on the financial knowledge, attitudes and behaviour of university students in Indonesia. Journal of Family and Economic Issues, 42(2), 351–367. https://doi.org/10.1007/s10834-020-09721-9

Kawamura, T., Mori, T., Motonishi, T., & Ogawa, K. (2021). Is financial literacy dangerous? Financial literacy, behavioral factors, and financial choices of households. Journal of the Japanese and International Economies, 60, 101131. https://doi.org/10.1016/j.jjie.2021.101131

Kempson, E., Sharon Collard, & Nick Moore. (2006). Measuring financial capability: An exploratory study for the financial services authority. Consumer Financial Capability: Empowering European Consumers 2006: 39.

Kibler, E. (2013). Formation of entrepreneurial intentions in a regional context. Entrepreneurship and Regional Development, 25(3–4), 293–323. https://doi.org/10.1080/08985626.2012.721008

Knoll, M. a. Z., & Houts, C. R. (2012). The Financial Knowledge Scale: an application of item response theory to the assessment of financial literacy. Journal of Consumer Affairs, 46(3), 381–410. https://doi.org/10.1111/j.1745-6606.2012.01241.x

Lazarus, J. (2020). Financial literacy education. In Routledge eBooks (pp. 390–399). https://doi.org/10.4324/9781315142876-35

Lee-Ross, D. (2017). An examination of the entrepreneurial intent of MBA students in Australia using the entrepreneurial intention questionnaire. Journal of Management Development, 36(9), 1180–1190. https://doi.org/10.1108/jmd-10-2016-0200

Lejuez, C. W., Read, J. P., Kahler, C. W., Richards, J. B., Ramsey, S. E., Stuart, G. L., Strong, D. R., & Brown, R. A. (2002). Evaluation of a behavioral measure of risk-taking: The Balloon Analogue Risk Task (BART). Journal of Experimental Psychology. Applied, 8(2), 75–84. https://doi.org/10.1037/1076-898x.8.2.75

Li, J., Li, Q., & Wei, X. (2020). Financial literacy, household portfolio choice and investment return. Pacific-basin Finance Journal, 62, 101370. https://doi.org/10.1016/j.pacfin.2020.101370

Li, R., & Qian, Y. (2019). Entrepreneurial participation and performance: the role of financial literacy. Management Decision, 58(3), 583–599. https://doi.org/10.1108/md-11-2018-1283

Liñán, F., & Chen, Y. (2009). Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. Entrepreneurship Theory and Practice, 33(3), 593–617. https://doi.org/10.1111/j.1540-6520.2009.00318.x

Lusardi, A. (2008). Household Saving Behavior: The role of financial literacy, information, and financial education programs. https://doi.org/10.3386/w13824

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. Journal of Pension Economics & Finance, 10(4), 497–508. https://doi.org/10.1017/s1474747211000448

Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. Journal of Economic Literature, 52(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lusardi, A., & Mitchelli, O. S. (2007). Financial Literacy and Retirement Preparedness: Evidence and implications for Financial education. Business Economics, 42(1), 35–44. https://doi.org/10.2145/20070104

Maheshwari, G., Kha, K. L., & Arokiasamy, A. R. A. (2022). Factors affecting students' entrepreneurial intentions: a systematic review (2005–2022) for future directions in theory and practice. Management Review Quarterly, 73(4), 1903–1970. https://doi.org/10.1007/s11301-022-00289-2

Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. Journal of Business Venturing, 28(2), 211–224. https://doi.org/10.1016/j.jbusvent.2012.03.002

Miranda, F. J., Chamorro-Mera, A., & Rubio, S. (2017). Academic entrepreneurship in Spanish universities: An analysis of the determinants of entrepreneurial intention. European Research on Management and Business Economics, 23(2), 113–122. https://doi.org/10.1016/j.iedeen.2017.01.001

Mitchell, O. S., & Lusardi, A. (2015). Financial Literacy and Economic Outcomes: evidence and policy implications. Journal of Retirement, 3(1), 107–114. https://doi.org/10.3905/jor.2015.3.1.107

Molina-García, A., Cisneros-Ruiz, A. J., López-Subires, M. D., & Diéguez-Soto, J. (2023). How does financial literacy influence undergraduates' risk-taking propensity? International Journal of Management Education, 21(3), 100840. https://doi.org/10.1016/j.ijme.2023.100840

Mudzingiri, C. (2021). The impact of financial literacy on university students' risk seeking and patient attitudes. Development Southern Africa, 38(5), 845–861. https://doi.org/10.1080/0376835x.2021.1945431

N, M., L, W., G, T., & V, P. (2012). Examining the bidirectional relationship between entrepreneurship and economic growth: Is entrepreneurship endogenous? In InTech eBooks. https://doi.org/10.5772/35861

Navajas, J., Hindocha, C., Foda, H., Keramati, M., Latham, P. E., & Bahrami, B. (2017). The idiosyncratic nature of confidence. Nature Human Behaviour, 1(11), 810–818. https://doi.org/10.1038/s41562-017-0215-1

Nelson, R. E. (1977). Entrepreneurship education in developing countries. Asian Survey, 17(9), 880–885. https://doi.org/10.2307/2643595

Nga, J. K. H., & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. Journal of Business Ethics, 95(2), 259–282. https://doi.org/10.1007/s10551-009-0358-8

Nguyen, C. (2017). Entrepreneurial intention of international business students in Viet Nam: a survey of the country joining the Trans-Pacific Partnership. Journal of Innovation and Entrepreneurship, 6(1), 1–13. https://doi.org/10.1186/s13731-017-0066-z

Noviarini, J., Coleman, A., Roberts, H., & Whiting, R. H. (2021). Financial literacy, debt, risk tolerance and retirement preparedness: Evidence from New Zealand. Pacific-basin Finance Journal, 68, 101598. https://doi.org/10.1016/j.pacfin.2021.101598

OECD/INFE 2020 International Survey of Adult Financial Literacy. (2020). In Implementing the OECD Anti-bribery Convention. https://doi.org/10.1787/145f5607-en

Oseifuah, E. K. (2010). Financial literacy and youth entrepreneurship in South Africa. African Journal of Economic and Management Studies, 1(2), 164–182. https://doi.org/10.1108/20400701011073473

Paço, A. M. F. D., Ferreira, J. M., Raposo, M., Rodrigues, R. G., & Dinis, A. (2011). Behaviours and entrepreneurial intention: Empirical findings about secondary students. Journal of International Entrepreneurship, 9(1), 20–38. https://doi.org/10.1007/s10843-010-0071-9

Pirinsky, C. (2013). Confidence and economic attitudes. Journal of Economic Behavior & Organization, 91, 139–158. https://doi.org/10.1016/j.jebo.2013.04.013

Popescu, C., Bostan, I., Robu, I., Maxim, A., & Diaconu, L. (2016). An Analysis of the Determinants of Entrepreneurial Intentions among Students: A Romanian Case Study. Sustainability, 8(8), 771. https://doi.org/10.3390/su8080771

Potrich, A. C. G., Vieira, K. M., Coronel, D. A., & Filho, R. B. (2015). Financial literacy in Southern Brazil: Modeling and invariance between genders. Journal of Behavioural and Experimental Finance, 6, 1–12. https://doi.org/10.1016/j.jbef.2015.03.002

Pruett, M., Shinnar, R., Toney, B., Llopis, F., & Fox, J. (2009). Explaining entrepreneurial intentions of university students: a cross-cultural study. International Journal of Entrepreneurial Behaviour & Research, 15(6), 571–594. https://doi.org/10.1108/13552550910995443

Puspita, G., & Isnalita, I. (2019). Financial Literacy: Pengetahuan, Kepercayaan Diri dan Perilaku Keuangan Mahasiswa Akuntansi. Owner, 3(2), 117. https://doi.org/10.33395/owner.v3i2.147

Ramalho, T. B., & Forte, D. (2019). Financial literacy in Brazil – do knowledge and self-confidence relate with behavior? RAUSP Management Journal, 54(1), 77–95. https://doi.org/10.1108/rausp-04-2018-0008

Riepe, J., Rudeloff, M., & Veer, T. (2020). Financial literacy and entrepreneurial risk aversion. Journal of Small Business Management, 60(2), 289–308. https://doi.org/10.1080/00472778.2019.1709380

Ruiz-Dotras, E., & Lladós-Masllorens, J. (2022). Entrepreneurial self-efficacy and financial and calculation skills can shape different profiles of venture intentions. Journal of Entrepreneurship, 31(1), 153–183. https://doi.org/10.1177/09713557211069319

Ruiz-Palomino, P., & Martínez-Cañas, R. (2021). From opportunity recognition to the start-up phase: the moderating role of family and friends-based entrepreneurial social networks. International Entrepreneurship and Management Journal, 17(3), 1159–1182. https://doi.org/10.1007/s11365-020-00734-2

Sabah, S. (2016). Entrepreneurial Intention: Theory of planned behaviour and the moderation effect of Start-Up experience. In InTech eBooks. https://doi.org/10.5772/65640

Salamouris, I. S. (2013). How overconfidence influences entrepreneurship. Journal of Innovation and Entrepreneurship, 2(1), 1–6. https://doi.org/10.1186/2192-5372-2-8

Sarwar, U. & Khan, M.M. (2022). Owner-Managers' Characteristics, Financial Resilience and Multidimensional Performance during COVID-19 Pandemic: A Resource-Based Perspective. Journal of Islamic Countries Society of Statistical Sciences, 8(2), 287-306

Sarwar, U., Ahmad, M. B., Mubeen, M., Fatima, I., & Rehan, M. (2023). A Bibliometric Analysis of Sustainability Disclosure in High Polluting Industries. Bulletin of Business and Economics (BBE), 12(3), 28-43

Sarwar, U., Baig, W., Rahi, S., & Sattar, S. (2025). Fostering Green Behavior in the Workplace: The Role of Ethical Climate, Motivation States, and Environmental Knowledge. Sustainability, 17(9), 4083. https://doi.org/10.3390/su17094083

Sarwar, U., Bint-e-Naeem, N., Fahmeed, L., & Atif, M. (2024). Role of Perceived Security and Financial Attitude in Shaping Behavioral Intention under the Moderation of Financial Literacy. Journal of Asian Development Studies, 13(3), 1380-1395

Schlaegel, C., & Koenig, M. (2014). Determinants of Entrepreneurial Intent: a Meta–Analytic test and integration of competing models. Entrepreneurship Theory and Practice, 38(2), 291–332. https://doi.org/10.1111/etap.12087

Schultz, T. W. (1980). Investment in entrepreneurial ability. Scandinavian Journal of Economics, 82(4), 437. https://doi.org/10.2307/3439676

Schumpeter, J. A. (1983). The Theory of Economic Development: An Inquiry Into Profits, Capital, Credit, Interest, and the Business Cycle. Transaction Publishers.

Shah, I. A., Amjed, S., & Jaboob, S. (2020). The moderating role of entrepreneurship education in shaping entrepreneurial intentions. Journal of Economic Structures, 9(1), 1-15. https://doi.org/10.1186/s40008-020-00195-4

Shahzad, M. F., Khan, K. I., Saleem, S., & Rashid, T. (2021). What factors affect the entrepreneurial intention to Start-Ups? The role of entrepreneurial skills, propensity to take risks, and innovativeness in open business models. Journal of Open Innovation, 7(3), 173. https://doi.org/10.3390/joitmc7030173

Shaukat, M. Z., Yousaf, S. U., Sarwar, U., & Sattar, S. (2024). Thriving in Turmoil: Unraveling the Interplay of Resources, Resilience, and Performance among SMEs in Times of Economic Vulnerability. Bulletin of Business and Economics (BBE), 13(2), 164-173

Soomro, B. A., Lakhan, G. R., Mangi, S., & Shah, N. (2020). Predicting entrepreneurial intention among business students of public sector universities of Pakistan: an application of the entrepreneurial event model. World Journal of Entrepreneurship, Management and Sustainable Development, 16(3), 219–230. https://doi.org/10.1108/wjemsd-11-2019-0092

Stolper, O. (2018). It takes two to Tango: Households' response to financial advice and the role of financial literacy. Journal of Banking & Finance, 92, 295–310. https://doi.org/10.1016/j.jbankfin.2017.04.014

Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. Journal of Business Economics/Zeitschrift Für Betriebswirtschaft, 87(5), 581–643. https://doi.org/10.1007/s11573-017-0853-9

Świecka, B., Terefenko, P., & Paprotny, D. (2021). Transaction factors' influence on the choice of payment by Polish consumers. Journal of Retailing and Consumer Services, 58, 102264. https://doi.org/10.1016/j.jretconser.2020.102264

Tang, N., & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior. Journal of Economic Psychology, 54, 164–176. https://doi.org/10.1016/j.joep.2016.04.005

Thurik, R., & Wennekers, S. (2004). Entrepreneurship, small business and economic growth. Journal of Small Business and Enterprise Development, 11(1), 140–149. https://doi.org/10.1108/14626000410519173

Van Auken, H., Fry, F. L., & Stephens, P. (2006). The Influence Of Role Models On Entrepreneurial Intentions. Journal of Developmental Entrepreneurship, 11(02), 157–167. https://doi.org/10.1142/s1084946706000349

Van Rooij, M. C., Lusardi, A., & Alessie, R. J. (2011). Financial literacy and retirement planning in the Netherlands. Journal of Economic Psychology, 32(4), 593–608. https://doi.org/10.1016/j.joep.2011.02.004

Van Stel, A., Carree, M., & Thurik, R. (2005). The effect of entrepreneurial activity on national economic growth. Small Business Economics, 24(3), 311–321. https://doi.org/10.1007/s11187-005-1996-6

Warmath, D., & Zimmerman, D. (2019). Financial Literacy as More than Knowledge: The Development of a Formative Scale through the Lens of Bloom's Domains of Knowledge. Journal of Consumer Affairs, 53(4), 1602–1629. https://doi.org/10.1111/joca.12286

Woodyard, A. S., Robb, C., Babiarz, P., & Jung, J. (2017). Knowledge and Practice: Implications for cash and credit management Behaviors. Family and Consumer Sciences Research Journal, 45(3), 300–314. https://doi.org/10.1111/fcsr.12202

World Bank (2012), World Development Indicators 2012, World Bank Publications, Washington, DC

World Bank. 2008. Youth Entrepreneurship. Measures to Overcome the Barriers Facing Youth, 2(6)

Wu, J., & Rudnák, I. (2021). Exploring the Impact of Studying abroad in Hungary on Entrepreneurial Intention among International Students. Sustainability, 13(17), 9545. https://doi.org/10.3390/su13179545

Xiang, D., & Worthington, A. (2015). Finance-seeking behaviour and outcomes for small- and medium-sized enterprises. International Journal of Managerial Finance, 11(4), 513–530. https://doi.org/10.1108/ijmf-01-2013-0005

Xu, S., Yang, Z., Ali, S. T., Li, Y., & Cui, J. (2022). Does financial literacy affect household financial behavior? The role of limited attention. Frontiers in Psychology, 13, 906153. https://doi.org/10.3389/fpsyg.2022.906153

Zhang, D. C., Highhouse, S., & Nye, C. D. (2018). Development and validation of the General Risk Propensity Scale (GRiPS). Journal of Behavioral Decision Making, 32(2), 152–167. https://doi.org/10.1002/bdm.2102

Zhang, P., Wang, D. D., & Owen, C. L. (2015). A study of entrepreneurial intention of university students. Entrepreneurship Research Journal, 5(1), 61-82. https://doi.org/10.1515/erj-2014-0004

Zollo, L., Laudano, M. C., Ciappei, C., & Zampi, V. (2017). Factors affecting universities' ability to foster students' entrepreneurial behaviour. Journal of Management Development, 36(2), 268–285. https://doi.org/10.1108/jmd-06-2016-0093.

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