

## **The Influence of Urban and Rural Environments on Students' Entrepreneurial Intentions: A Conceptual Framework**

**Zahran Abdulwahad Al Harrasi**

School of Business and Economics,  
Universiti Putra Malaysia

**Mass Hareeza Ali**

School of Business and Economics,  
Universiti Putra Malaysia

### **ABSTRACT**

**This study provides a conceptual framework on the influence of urban/rural environments in shaping students' entrepreneurial intentions. Since entrepreneurship plays a crucial role in economic growth and development, it is important to understand the factors that affect individuals' intention to be entrepreneurs, especially at school age. A large proportion of research found that urban/rural environment was among the effective factors. Therefore, this study aims to present a conceptual framework on how urban and rural environments affect students' entrepreneurial intentions and therefore their decision to start their own business in the future. Therefore, this study assumes that students in urban areas are more exposed to economic and entrepreneurial activities than students in rural areas. Hence, it leads to a greater entrepreneurial intention with students living in those urban areas than those in rural areas. The study concludes with implications for policymakers and suggestions for further research.**

**Keywords:** Entrepreneurial intention, urban/rural environment, school students, Theory of Planned Behavior

### **INTRODUCTION**

Studies continuously reveal positive results about entrepreneurship and its impact in boosting economy and reducing the poor in community. It fosters productivity, employment and market innovation [1]. Thus, countries that are aware of the importance of entrepreneurship make greater efforts to reinforce their youths towards entrepreneurship [2].

In order for individuals to initiate their own businesses, researchers emphasize on the vital importance of having entrepreneurial intention [3]. This intention itself, in return, must be preceded by certain determinants that contribute to strengthening entrepreneurial intention or perhaps fading it [4]. Different theories have attempted to decide upon these antecedents including the Theory of Planned Behavior. Ajzen [5] proposed his theory, which has been validated and widely used in different research fields including entrepreneurship [4, 6, 7].

The Theory of Planned Behavior suggests three determinants that influence behavioral intentions, namely; attitudes towards behavior, subjective norms, and perceived behavioral

control [8, 9]. Attitudes refer to the extent an individual has favorable or unfavorable thought and evaluation towards entrepreneurship [5]. Subjective norms focus more on the social pressure (family, close friends, classmates, or any other important people) perceived by individuals to start their own business [5]. The determinant of perceived behavioral control assesses the realization of individuals about the ease or difficulty of starting and managing a firm [10].

Various factors affecting entrepreneurial intention have been researched, however; the influence of urban/rural environments on entrepreneurial intention especially with high school students has not been researched well. This gap is to be filled by the present study, which adds good value to the literature of entrepreneurial intention and the Theory of Planned Behavior.

Not much is known about the influence of an individual's contextual environment (urban/rural) on their entrepreneurial intention [11]. Therefore, this study intends to investigate the influence of urban/rural environments on students' entrepreneurial intention at school age. It aims to make a comparison between students residing in urban areas and their counterparts in rural ones regarding their intentions to be entrepreneurs in the future. The antecedents of entrepreneurial intention proposed by the Theory of Planned Behavior are also reviewed.

This paper addresses the literature on entrepreneurship, entrepreneurial intention and the determinants proposed by Ajzen that consist of attitudes, subjective norms and perceived behavioral control. The literature also covers urban and rural contexts and their effect on the entrepreneurial intention. Moreover, a conceptual framework is suggested to identify the relationships between the urban and rural environments, Ajzen's three determinants and students' entrepreneurial intentions. A conclusion at the end of the article is included to summarize the findings with recommendations for the decision-makers concerned and suggestions for future research.

## LITERATURE REVIEW

### Entrepreneurship

There is a growing interest in entrepreneurship as it has a positive impact on nations' economic development and solving unemployment dilemma. This unemployment has become an urgent issue for different countries, especially with the growing population, as the unemployed put a heavy burden on their economies. Here comes the important role of entrepreneurship as one of the effective engines to promote economic development and absorb the increasing unemployment to live in dignity within their communities [12]. Creating jobs is simply the solution to reduce unemployment rates. This is possible if sources and opportunities are only created [13] and entrepreneurship is certainly among these sources.

Once again, it is no wonder that countries pay extensive attention to entrepreneurship as it is largely considered as a main driver for economic prosperity and innovation as well as a solution for unemployment problems in societies. As an example of countries' interest in entrepreneurship is the Omani context. Its long-term strategic plan "Vision 2040" prioritized entrepreneurship as one of the pillars in strengthening the national economy. Therefore, the government launched different initiatives such as inclusion of entrepreneurship education in

schools. This matter prompted the Ministry of Education to employ Career Guidance Specialists (teachers) to provide students with proper assistance and guidance to make their decisions about their future career pathways. Self-employment is one of the possible paths for students whether after they leave school or graduate from university.

As a result, entrepreneurship has been also receiving an increasing interest from students as one of the potential career choices [14]. This has changed the reality of unemployment and its causes when Bhagchandani [15] considered that the root of the problem was the tendency of young people and graduates to search for salaried-jobs instead of creating these jobs through starting their own businesses.

In studying the factors of individuals' decision-making towards entrepreneurship, researchers have found that the contextual environment has a role in this as "entrepreneurship is the result of the interaction between the individual attributes and the surrounding environments" as stated by Erik Eriksson [16]. These findings encouraged policymakers to consider entrepreneurship in both urban and rural environments. For example, they rely on rural entrepreneurship to create job opportunities, thus reduction of depopulation and migration to urban areas [17].

### **Entrepreneurial Intention**

Entrepreneurial intention is considered to be a fundamental predictor of entrepreneurial behavior. Individuals with entrepreneurial intention are more committed to start their own ventures [8].

Researchers proposed miscellaneous factors that affect individuals' intention towards a certain behavior. Some of them emphasized the role of entrepreneurship education in influencing students' entrepreneurial intention in both school and university levels [18]. The support of the others (family, close friends and other important people) is another element that assists researchers to understand students' motives to become entrepreneurs [19] and later achieve success in their projects [20].

The intention to start a new firm is also associated with external environment, which affects students' decision about their future career path [12]. Therefore, it becomes necessary to recognize the importance of the antecedents of entrepreneurial intention, which in turn will contribute to the success of enterprises and therefore bring the good to the community. Several theories suggested different determinants that affect entrepreneurial intention. The Theory of Planned Behavior by Ajzen is one of the dominant ones.

### **Ajzen's Determinants of Intention**

Entrepreneurship is among the research areas that the Theory of Planned Behavior has examined extensively [21]. It focuses on individuals' intention towards a certain behavior and the practical action to be taken [14]. It proposes three antecedents of attitudes, social norms and perceived behavioral control that influence the behavioral intention, which in turn affects individuals' practical behavior [5].

Ajzen's Theory of Planned Behavior (TPB) is widely used to explain behavioral intention including entrepreneurship and the consequent involvement in that behavior [22]. A good body

of literature supports Ajzen's theory in its attempt to powerfully explain individual's intentions and behaviors largely including entrepreneurship [23]. Different scholars have empirically tested Ajzen's theory in entrepreneurship [9].

In literature, most studies agreed upon attitudes to be the most determinant that motivates entrepreneurial intention [8]. On the other hand, the determinant of subjective norms showed the least relationship with intention [24]. Generally, most of the previous literature supported the existence of the significant effect of the three determinants on entrepreneurial intention [8, 18].

### **Attitudes:**

Attitude refers to individual's attraction for a certain behavior and the desire to do that behavior [5]. Researchers emphasize on the significance of attitude in shaping and fostering individual's intention and behavior towards entrepreneurship [25]. Liñán, Rodríguez-Cohard [26] articulated that attitude arouse individual's intention to engage in entrepreneurial endeavors. In other words, the stronger the entrepreneurial attitude is, the stronger the entrepreneurial intention [10, 27]. Consistently, attitude towards entrepreneurship was determined as a key antecedent of intention, impressing its role on students' decision about their future career pathways [28, 29].

### **Subjective Norms:**

Subjective norms deal with the pressure that social surrounding practices on individuals to carry out specific behaviors [5, 30]. In the case of entrepreneurship, seeking approval from close people such as relatives and friends play an important role in taking the decision to become an entrepreneur and start own venture, that is; close people's perceptions and opinions about entrepreneurship are positively or negatively influential on individuals' engagement in entrepreneurial activities [31, 32].

### **Perceived Behavioral Control:**

This factor deals with individuals' perception of their ability and potential to start and run their own ventures [5]. It can be considered as self-efficacy that was addressed by other theories and authors [33, 34]. According to the theory's founders, the more individuals believe they are capable of starting and running their own businesses, the stronger their entrepreneurial intentions. In other words, if individuals perceive that entrepreneurship is easy, they are more likely to start their business, and vice versa.

### **Influence of Urban/Rural Contexts on Entrepreneurial Intention**

Among the influences on entrepreneurial intention is the contextual environment [35], which includes the residential area inhabited by individuals in terms of urban and rural [36]. The examiner of previous studies clearly finds that the focus of previous research was on urban rather than rural areas [35]. Therefore, the previous literature mostly represents the nature of urban areas, and it does not necessarily apply to the rural environment.

Sternberg [37] noted that urban individuals possess stronger entrepreneurial intention than the ones residing in rural areas. This notice was supported by research conducted in Denmark, which concluded that urban individuals are more likely to start their own firms [38]. However, with different results than usual, a study conducted by Capelleras, Contín-Pilart [11] on a

Spanish sample found that rural people are more likely than urban people to be entrepreneurs. On the other hand, Shahzad, Khan [12] did not find any significant differences between rural and urban individuals concerning their entrepreneurial intention.

It is observable that the spread of entrepreneurship in urban areas is higher than it is in rural ones [37]. This is due to more availability of social and economic resources in urban areas, which results in giving an advantage for higher entrepreneurial intention and more entrepreneurial behaviors [39].

Socio-cultural attitudes are among the contextual factors that affect students' entrepreneurial decision-making [40]. Therefore, understanding cultural differences between urban and rural residents gives another explanation of the rate of entrepreneurship in these areas and the extent of entrepreneurial intention possessed by their people [41].

The urban availability of financial resources and technological advancement also assist individuals to step into entrepreneurship [42], which is preceded by their intention to become entrepreneurs.

The existence of resources might not be impactful enough to help individuals make their decision to start their own business. Their personal attitudes and the perceptions of the surrounding individuals on the benefits of entrepreneurship play a role in their behavioral intention.

Individuals lean more towards entrepreneurship when the unemployment rate rises. Therefore, unemployment in rural areas motivates individuals to engage in entrepreneurship [43]. Similarly, Capelleras, Contín-Pilart [11] found that individuals residing rural area are more likely to be start their business once they perceive an opportunity. This is due to the scarce job opportunities in rural areas compared to the urban context. Aware of these findings, policymakers seek to promote rural entrepreneurship to reduce unemployment and consequently rural depopulation [44].

Because of a greater networking opportunity, urban people have more potential to be entrepreneurs [35]. Moreover, work disagreements and job dissatisfaction push employees in the urban areas to seriously think about being independent and starting their own business [45]. In addition, the vitality of urban areas gives them an edge over rural areas in encouraging entrepreneurs to start their own businesses [35]. The population density gives an advantage to urban areas as a better business environment [46]. Regarding the types of business, while they vary in urban areas, agriculture remains the dominant industry in rural areas [44].

Educational programs have been more researched in the urban samples [35]. It has been found that the amount of knowledge about establishing and running a business affects the enhancement or reduction of entrepreneurial intent.

- H1: Urban environment positively influences students' entrepreneurial intention.
- H2: Rural environment negatively influences students' entrepreneurial intentions.

### **Relationship between Urban/Rural Contexts and Ajzen's Determinants**

### **Relationship between Urban/Rural Contexts and Attitude:**

Some rural residents are aware of the benefits that entrepreneurship can bring to their region's economy and are therefore attracted to this direction [47, 48]. That is why the European Commission has considered entrepreneurship as a tool for the development of rural areas [49]. Promoting entrepreneurship in rural areas has also been recommended by different researchers [50]. Although some rural individuals have their positive personal attitude towards entrepreneurship in their areas, the city's style and the abundance of jobs there encourage the majority to migrate to the urban areas and thus demotivates them from the notion of establishing their own business in their genuine areas [51]. In addition, the inactive business activity in the countryside discourages its individuals from becoming entrepreneurs [52, 53].

- H3: Urban environment positively influences attitudes towards behavior.
- H4: Rural environment negatively influences attitudes towards behavior.

### **Relationship between Urban/Rural Contexts and Subjective Norms:**

Social network is impactful in individuals' intent to be entrepreneurs [54] and the surrounding people have an influence in supporting or rejecting their potential decisions. For example, the role models can significantly influence individuals and their behavior [55]. This influence is less in rural areas since individuals have less exposure to entrepreneurial role models compared to urbanites [41, 56, 57]. This fact was not approved by Gómez-Araujo and Bayon [58] where they found no significant differences between urban and rural individuals respecting the impact of role models on entrepreneurial intention. Family also plays a vital role in individuals' intention and their potential careers. Those individuals who grow up in a family with an entrepreneurial background are noticeably influenced in their intention to start their own businesses [59] and they consider entrepreneurship as a natural career choice alternative. They are more likely to be self-employed than those who are raised in non-entrepreneurial families [60-62]. All of this is in favor of urban areas over rural ones where businesses are common and where most entrepreneurial families live.

- H5: Urban environment positively influences subjective norms.
- H6: Rural environment negatively influences subjective norms.

### **Relationship between Urban/Rural Contexts and Perceived Behavioral Control:**

Regarding Ajzen's determinant of perceived behavioral control, individuals who are confident in their capabilities are more probable to start their own businesses [63-65]. For example, greater access to financial resources and business knowledge enhances individuals' confidence in starting their own businesses, which are often more readily available in urban environments [51]. This also applies to those who possess high self-efficacy which pushes them to work harder to achieve the goals that they strongly believe in [33] and entrepreneurship is among these goals. Interestingly, a study conducted by Gómez-Araujo and Bayon [58] measured the fear of failure and it concluded that rural young individuals showed higher negative impact compared the urban ones. In a Kenyan high school situation, Kibuka [66] found no significant difference in the perception of feasibility (a term used in Shapero's Entrepreneurial Event Model which is closely similar to the perceived behavioral control in the Theory of Planned Behavior) between urban and rural contexts.

- H7: Urban environment positively influences perceived behavioral control.
- H8: Rural environment negatively influences perceived behavioral control.

**Relationship between Ajzen's Determinants and Entrepreneurial Intention**

Different research papers, such as the one conducted by Kautonen, Marco [22] in Finland and Al-Jubari [18] in Yemen, confirmed the positive relationship between all the three determinants together with the individuals' entrepreneurial intention.

Based on literature review, the results showed the positive influence of attitudes on entrepreneurial intention [67-69]. Moreover, Martín-Navarro, Velicia-Martín [8] highlighted that among the three determinants proposed by Ajzen, attitude has been the most widely proved by numerous studies to boost individual's entrepreneurial intention. Not only that, it has also been proved to be the strongest predictor of individuals' intention to start their own businesses [18, 70, 71].

A study conducted by Liu and Yao-Ping Peng [14] revealed a positive correlation between students' entrepreneurial attitudes and their intention. In a similar vein, Liñán [4] concluded in their study on their student sample in Spain and Taiwan that attitude was a significant predictor for their entrepreneurial intention. Another sample from Spain Martín-Navarro, Velicia-Martín [8] proved the positive influence of attitude on entrepreneurial intention.

Surveying women entrepreneurs in Omani rural areas, the researchers found that attitudes positively influenced women to adopt their choice of self-employment [71-73]. For their part, Hintikka, Taipale-Erävala [74] found that attitudes of young people in Finland towards entrepreneurship were greater than what had been revealed in earlier studies. In their study, a notable number of samples had already experienced entrepreneurship. The researchers attributed this attitude towards entrepreneurship to the entrepreneurial education activities held at the regional level.

Unlike the other two determinants, subjective norms showed fluctuating results about their impact on entrepreneurial intention. While an Indonesian study by Ridha and Wahyu [75] proved the positive influence of subjective norms on entrepreneurial intention, other studies could not prove it. For example, Martín-Navarro, Velicia-Martín [8] found no significant relationship between subjective norms and entrepreneurial intention. Similar non-significant findings were also declared by Doanh and Bernat [76] in their study conducted with Vietnamese students.

According to Lortie and Castogiovanni [24], perceived behavioral control was the determinant that had the most significant influence on entrepreneurial intention. In another study with college students in China to investigate their intention to return home in rural areas to start their own business, results showed that perceived behavioral control had a significantly positive impact on their entrepreneurial intention [4, 77]. A similar conclusion was also revealed by Martín-Navarro, Velicia-Martín [8] in their study on a sample of Spanish university students.

- H9: Attitude towards entrepreneurship positively influences students' entrepreneurial intentions.
- H10: Subjective norms positively influence students' entrepreneurial intentions.
- H11: Perceived behavioral control positively influences students' entrepreneurial intentions.

## CONCEPTUAL FRAMEWORK

This study adopts the Theory of Planned Behavior (TPB) as its foundational theoretical lens to examine how environmental factors influence students' entrepreneurial intentions. According to Ajzen [5], entrepreneurial intention is determined by three primary constructs: attitude toward behavior, subjective norms, and perceived behavioral control. Building on this theory, the current conceptual framework (See Figure 1) integrates the contextual variables of urban and rural environments as exogenous factors that impact both the TPB predictors and entrepreneurial intention itself. Prior studies have increasingly recognized that contextual and spatial differences play a significant role in shaping entrepreneurial behaviors and cognition [6, 22]. The proposed hypotheses (H1–H11) reflect how environmental contexts influence intention both directly and indirectly through the TPB pathways.

The urban environment is hypothesized to positively influence students' entrepreneurial intentions (H1) by offering a more conducive ecosystem for entrepreneurship. Urban areas typically provide better access to infrastructure, entrepreneurial networks, support services, and exposure to innovative business models [78]. These factors contribute to more positive attitudes (H3), stronger subjective norms (H5), and enhanced perceived behavioral control (H7) among urban students. Empirical research supports that students in urban settings are more likely to view entrepreneurship as achievable and socially encouraged [77, 79]. Thus, the urban environment can act as a catalyst, strengthening the motivational and perceptual constructs within the TPB framework.

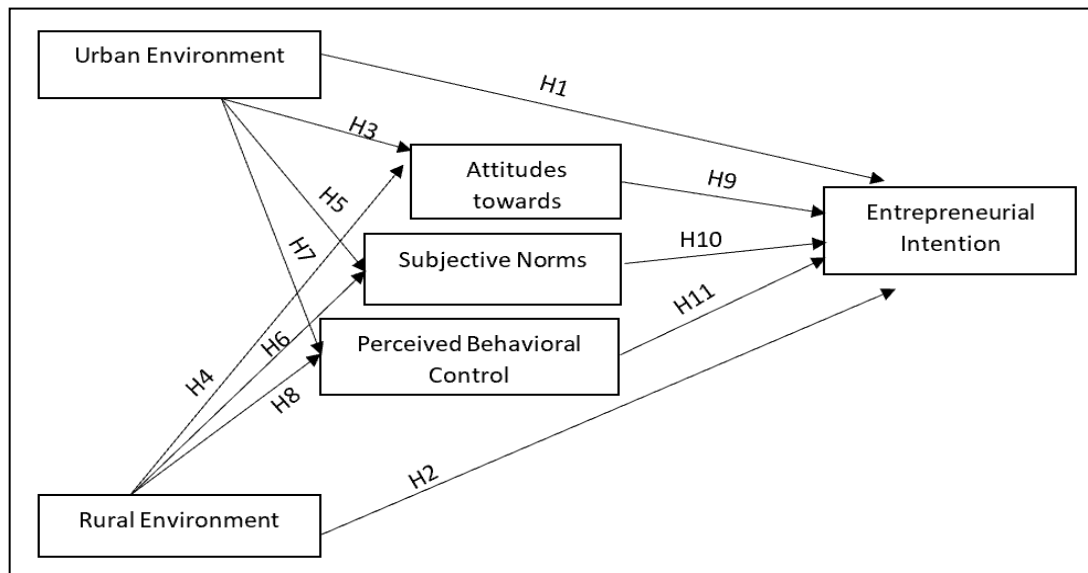
Conversely, rural environments often present constraints that negatively influence entrepreneurial intentions (H2). Students in rural areas may face limited exposure to entrepreneurial role models, fewer financial resources, and weaker institutional support systems [80]. These disadvantages contribute to less favorable attitudes (H4), weaker social encouragement or subjective norms (H6), and reduced perceived behavioral control (H8). Research by Nabi, Liñán [81] highlights the disparity in entrepreneurial education and opportunity structures between rural and urban contexts, which negatively affects rural students' entrepreneurial perceptions and intentions. Consequently, rural environments may suppress entrepreneurial engagement due to lower perceived feasibility and social support.

Aligned with the TPB, the framework posits that entrepreneurial intention is significantly predicted by students' attitude toward entrepreneurship (H9), subjective norms (H10), and perceived behavioral control (H11). A positive attitude reflects the perception that entrepreneurship is valuable and rewarding, while subjective norms refer to perceived approval or support from significant others [5]. Perceived behavioral control denotes self-efficacy in executing entrepreneurial behavior. Numerous studies confirm these variables as strong predictors of entrepreneurial intentions in various contexts [18, 26, 82]. Recent evidence by Ferreira, Fernandes [83] reaffirms the robustness of TPB, especially in student populations, emphasizing the relevance of these cognitive determinants in guiding entrepreneurial decision-making.

By integrating environmental context with TPB constructs, this framework provides a holistic view of the formation of entrepreneurial intentions. It emphasizes that individual intentions are not solely a result of internal motivation but are also shaped by the surrounding physical and social environment [84, 85]. The dual inclusion of urban and rural settings allows for a



comparative analysis of how place-specific conditions affect entrepreneurial cognition and intention.



**Figure 1: Conceptual Framework**

## CONCLUSION

Because of the significant importance of entrepreneurship in improving countries, researchers sought to understand the factors that influence entrepreneurial intention. Many theories have addressed this topic, the most common of which is the Theory of Planned Behavior, founded by Ajzen. This theory has continuously proved to be a reliable model to comprehend behavioral intention including entrepreneurship. This paper focuses on the influence of urban/rural environments on entrepreneurial intentions of school students since it had not been researched sufficiently. Therefore, this research would be a valuable addition to the literature of entrepreneurial intention.

Considering the results of the current study, it is suggested that policy makers need to understand the differences between urban and rural students concerning their entrepreneurial intention and therefore design tailored entrepreneurship context including education. The more students are exposed to the real business world, the stronger their entrepreneurial intention becomes. It is also important to strengthen individuals' attitudes towards entrepreneurship since previous research confirms its positive impact on entrepreneurial intention, which in turn results in actual involvement in entrepreneurship.

In continuation of research effort, the researcher recommends conducting empirical research on the impact of entrepreneurship educational programs that are specifically tailored differently for both rural and urban students. Other future studies may also address the impact of some countries' experiences in empowering rural areas and promoting entrepreneurship therein.

## References

1. Esfandiar, K., et al., *Understanding entrepreneurial intentions: A developed integrated structural model approach*. Journal of Business Research, 2019. 94: p. 172-182.

2. Ahmad, N.H., et al., *Entrepreneurship as a preferred career option: Modelling tourism students' entrepreneurial intention*. Education+ Training, 2019. 61(9): p. 1151-1169.
3. Maheshwari, G., *Factors affecting students' intentions to undertake online learning: an empirical study in Vietnam*. Education and information technologies, 2021. 26(6): p. 6629-6649.
4. Liñán, F., *Skill and value perceptions: how do they affect entrepreneurial intentions?* International Entrepreneurship and Management Journal, 2008. 4(3): p. 257-272.
5. Ajzen, I., *The Theory of planned behavior*. Organizational Behavior and Human Decision Processes, 1991.
6. Liñán, F. and A. Fayolle, *A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda*. International entrepreneurship and management journal, 2015. 11: p. 907-933.
7. Krueger, N.F., M.D. Reilly, and A.L. Carsrud, *Competing models of entrepreneurial intentions*. Journal of Business Venturing, 2000. 15(5): p. 411-432.
8. Martín-Navarro, A., et al., *Impact of effectual propensity on entrepreneurial intention*. Journal of Business Research, 2023. 157: p. 113604.
9. Urban, B. and F. Ratsimanetrimanana, *Access to finance and entrepreneurial intention: an empirical study of Madagascan rural areas*. Journal of Enterprising Communities: People and Places in the Global Economy, 2019. 13(4): p. 455-471.
10. Ajzen, I., *Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior*. Journal of Applied Social Psychology, 2002. 32(4): p. 665-683.
11. Capelleras, J.-L., et al., *The influence of individual perceptions and the urban/rural environment on nascent entrepreneurship*. Investigaciones Regionales-Journal of Regional Research, 2013(26): p. 97-113.
12. Shahzad, M.F., et al., *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: Technology, Market, and Complexity, 2021. 7(3): p. 173.
13. Dubey, P. and K.K. Sahu, *Investigating various factors that affect students' adoption intention to technology-enhanced learning*. Journal of Research in Innovative Teaching & Learning, 2021. 15(1): p. 110-131.
14. Liu, Q. and M. Yao-Ping Peng, *Exploring factors influencing university students' entrepreneurial intentions: The role of attitudes, beliefs, and environmental support*. PloS one, 2025. 20(1): p. e0316392.
15. Bhagchandani, R., *How India can up its start-up game by bolstering student entrepreneurship*. Yourstory, 2017.
16. Erik Eriksson, P., *Improving construction supply chain collaboration and performance: a lean construction pilot project*. Supply Chain Management: An International Journal, 2010. 15(5): p. 394-403.
17. Bouichou, E.H., et al., *Entrepreneurial intention among rural youth in Moroccan agricultural cooperatives: The future of rural entrepreneurship*. Sustainability, 2021. 13(16): p. 9247.
18. Al-Jubari, I., *College students' entrepreneurial intention: Testing an integrated model of SDT and TPB*. Sage Open, 2019. 9(2): p. 2158244019853467.
19. Mustapha, M. and M. Selvaraju, *Personal attributes, family influences, entrepreneurship education and entrepreneurship inclination among university students*. Kajian Malaysia: Journal of Malaysian Studies, 2015. 33.
20. Raza, S.A., et al., *Social Isolation and Acceptance of the Learning Management System (LMS) in the time of COVID-19 Pandemic: An Expansion of the UTAUT Model*. Journal of Educational Computing Research, 2021. 59(2): p. 183-208.
21. Carr, J.C. and J.M. Sequeira, *Prior family business exposure as intergenerational influence and entrepreneurial intent: A Theory of Planned Behavior approach*. Journal of Business Research, 2007. 60(10): p. 1090-1098.

22. Kautonen, T., v.G. Marco, and E.T. and Tornikoski, *Predicting entrepreneurial behaviour: a test of the theory of planned behaviour*. Applied Economics, 2013. 45(6): p. 697-707.
23. Alam, M.Z., S. Kousar, and C.A. Rehman, *Role of entrepreneurial motivation on entrepreneurial intentions and behaviour: theory of planned behaviour extension on engineering students in Pakistan*. Journal of Global Entrepreneurship Research, 2019. 9(1): p. 1-20.
24. Lortie, J. and G. Castogiovanni, *The theory of planned behavior in entrepreneurship research: what we know and future directions*. International entrepreneurship and management journal, 2015. 11: p. 935-957.
25. La Barbera, F. and I. Ajzen, *Moderating role of perceived behavioral control in the theory of planned behavior: A preregistered study*. Journal of Theoretical Social Psychology, 2021. 5(1): p. 35-45.
26. Liñán, F., J.C. Rodríguez-Cohard, and J.M. Rueda-Cantuche, *Factors affecting entrepreneurial intention levels: a role for education*. International entrepreneurship and management Journal, 2011. 7: p. 195-218.
27. Lip, T.K., et al., *Entrepreneurial Knowledge and Sustainable SMEs Performance: The Mediation Role of Strategic Opportunity Recognition*. Advances in Social Sciences Research Journal, 2025. 12(04): p. 24-42.
28. Sharahiley, S.M., *Examining entrepreneurial intention of the Saudi Arabia's University students: Analyzing alternative integrated research model of TPB and EEM*. Global Journal of Flexible Systems Management, 2020. 21: p. 67-84.
29. Al-Refaei, A.A.-A., et al., *A Conceptual Framework for the Impact of Entrepreneurial Leadership on Innovation Work Behavior and Sustainable Innovation Performance*, in *Entrepreneurship Innovation and Education for Performance Improvement*, S.A. Salman and A. Bhaumik, Editors. 2024, IGI Global: Hershey, PA, USA. p. 577-598.
30. Al-Zubaidi, R., et al., *Market Orientation and SMEs Performance: Unraveling the Mediating Effects of Innovation Capability Amidst Environmental Uncertainty*, in *Tech Fusion in Business and Society : Harnessing Big Data, IoT, and Sustainability in Business: Volume 2*, R.K. Hamdan, Editor. 2025, Springer Nature Switzerland: Cham. p. 859-872.
31. Van Gelderen, M., et al., *Explaining entrepreneurial intentions by means of the theory of planned behaviour*. Career development international, 2008. 13(6): p. 538-559.
32. Abdulsamad, A., et al., *Entrepreneurial Orientation and Innovation Capabilities as Drivers of Sustainable Innovation Performance: A Conceptual Framework for SMEs*, in *Tech Fusion in Business and Society : Harnessing Big Data, IoT, and Sustainability in Business: Volume 2*, R.K. Hamdan, Editor. 2025, Springer Nature Switzerland: Cham. p. 845-858.
33. Bandura, A. and S. Wessels, *Self-efficacy*. 1997: Cambridge University Press Cambridge.
34. Raqee, A., et al., *Influence of Risk Reduction and Hedging on Project Management: Internal Control Mediator in Iraqi SMEs Construction*, in *Tech Fusion in Business and Society : Harnessing Big Data, IoT, and Sustainability in Business: Volume 2*, R.K. Hamdan, Editor. 2025, Springer Nature Switzerland: Cham. p. 873-899.
35. Joo, Y.J., H.-J. So, and N.H. Kim, *Examination of relationships among students' self-determination, technology acceptance, satisfaction, and continuance intention to use K-MOOCs*. Computers & Education, 2018. 122: p. 260-272.
36. Arenius, P. and M. Minniti, *Perceptual variables and nascent entrepreneurship*. Small business economics, 2005. 24(3): p. 233-247.
37. Sternberg, R., *Regional dimensions of entrepreneurship*. Foundations and Trends® in Entrepreneurship, 2009. 5(4): p. 211-340.
38. Nielsen, B.B. and S. Nielsen, *The role of top management team international orientation in international strategic decision-making: The choice of foreign entry mode*. Journal of World Business, 2011. 46(2): p. 185-193.
39. Li, Y.-H., J.-W. Huang, and M.-T. Tsai, *Entrepreneurial orientation and firm performance: The role of knowledge creation process*. Industrial Marketing Management, 2009. 38(4): p. 440-449.

40. Bergmann, H. and R. Sternberg, *The changing face of entrepreneurship in Germany*. Small Business Economics, 2007. 28(2): p. 205-221.
41. Malecki, E.J., *Entrepreneurship in regional and local development*. International regional science review, 1993. 16(1-2): p. 119-153.
42. Wagner, J. and R. Sternberg, *Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data*. The annals of regional science, 2004. 38(2): p. 219-240.
43. Blanchflower, D.G. and B.D. Meyer, *A longitudinal analysis of the young self-employed in Australia and the United States*. Small Business Economics, 1994. 6(1): p. 1-19.
44. Ataei, P., et al., *A conceptual model of entrepreneurial competencies and their impacts on rural youth's intention to launch SMEs*. Journal of Rural Studies, 2020. 75: p. 185-195.
45. Cromie, S. and J. Hayes, *Business ownership as a means of overcoming job dissatisfaction*. Personnel Review, 1991. 20(1): p. 19-24.
46. Van Stel, A. and K. Suddle, *The impact of new firm formation on regional development in the Netherlands*. Small Business Economics, 2008. 30(1): p. 31-47.
47. Siemens, L., *"We moved here for the lifestyle": A picture of entrepreneurship in rural British Columbia*. Journal of Small Business & Entrepreneurship, 2014. 27(2): p. 121-142.
48. Al-Zubaidi, R., et al., *Promoting Sustainability in Yemeni Construction SMEs: Self-Efficacy Mediates Planning and Risk Management*, in *Entrepreneurship Innovation and Education for Performance Improvement*, S.A. Salman and A. Bhaumik, Editors. 2024, IGI Global: Hershey, PA, USA. p. 72-113.
49. Vives, A., *Responsible practices in small and medium enterprises*, in *A handbook of corporate governance and social responsibility*. 2016, Routledge. p. 107-130.
50. North, M.M., R. George, and S.M. North, *Computer security and ethics awareness in university environments: a challenge for management of information systems*, in *Proceedings of the 44th annual Southeast regional conference*. 2006, Association for Computing Machinery: Melbourne, Florida. p. 434-439.
51. Meccheri, N. and G. Pelloni, *Rural entrepreneurs and institutional assistance: an empirical study from mountainous Italy*. Entrepreneurship & Regional Development, 2006. 18(5): p. 371-392.
52. Al-Sharif, A.M., et al., *The role of innovation capability in the relationship between entrepreneurial leadership and innovation performance in the SMEs service industry*. Advances in Social Sciences Research Journal, 2023. 10(1): p. 264-278.
53. Al-Sharif, A., et al., *Effects of Innovation Capability and Environmental Dynamism on the Relationship between Entrepreneurial Leadership and Innovation Performance in the SMEs Service Industry*. International Journal of Academic Research in Business and Social Sciences, 2023. 13(10).
54. Elali, W. and B. Al-Yacoub, *Factors affecting entrepreneurial intentions among Kuwaitis*. World Journal of Entrepreneurship, Management and Sustainable Development, 2016. 12(1): p. 18-34.
55. Gibson, D.E., *Role models in career development: New directions for theory and research*. Journal of vocational behavior, 2004. 65(1): p. 134-156.
56. Abdulhadi, A.R., et al., *The Impact of Internal Control on Project Management in Construction Site Among Small and Medium Enterprises in Iraq*. Advances in Social Sciences Research Journal, 2023. 10(3): p. 247-268.
57. Al-Zubaidi, R., et al., *Sustainable Development Through Effective Project Management: The Petromasila in Yemen*. Advances in Social Sciences Research Journal, 2023. 10(3): p. 269-290.
58. Gómez-Araujo, E. and M.C. Bayon, *Socio-cultural factors and youth entrepreneurship in rural regions*. Revista brasileira de gestão de negócios, 2017. 19: p. 200-218.
59. Crant, J.M., *The proactive personality scale as a predictor of entrepreneurial intentions*. Management, 1996. 29(3): p. 62-74.

60. Fairlie, R.W. and A. Robb, *Families, human capital, and small business: Evidence from the characteristics of business owners survey*. ILR Review, 2007. 60(2): p. 225-245.
61. Abdulhadi, A.R., et al., *The Impact of Risk Management on the Dimensions of Project Management Among Small and Medium Enterprises in Iraq*. Advances in Social Sciences Research Journal, 2022. 9(11): p. 469-481.
62. Al-Zubaidi, R., et al., *The Effect of Self-efficacy on Sustainable Development: The PetroMasila in Yemen*. Advances in Social Sciences Research Journal, 2022. 9(12): p. 35-49.
63. Dimov, D., *Nascent entrepreneurs and venture emergence: Opportunity confidence, human capital, and early planning*. Journal of management studies, 2010. 47(6): p. 1123-1153.
64. Abdulsamad, A., et al., *The Impact of Market Orientation Components on Organizational Performance of SMEs. The single-industry approach" Food and Beverage Sector*. Advances in Social Sciences Research Journal, 2021. 8(5): p. 504-516.
65. Alghamdi, M.A.A., et al., *Antecedents and consequences of employee well-being: Empirical study on Saudi Aramco*. Advances in Social Sciences Research Journal, 2021. 8(9): p. 22.
66. Kibuka, G., *An examination of factors that influence entrepreneurial intention of high school students in Kenya*. 2011, University of Illinois at Urbana-Champaign.
67. Mejía, E.T., B.P. González, and I.E.B. Medina, *Implications of the Theory of Planned Behavior in the returned migrant's entrepreneurial intention*. Paradigma económico. Revista de economía regional y sectorial, 2021. 13(3): p. 114-134.
68. Alghamdi, M.A.A., et al., *Employee Well Being and knowledge sharing behavior among employees of Saudi Aramco*. Advances in Social Sciences Research Journal, 2021. 8(8): p. 261-284.
69. Jandab, A., et al., *The influence of it capability on it-based innovation: the mediating role of organizational learning capability*. Sci. Int.(Lahore), 2020. 32(4): p. 357-365.
70. Farooq, R. and S. Vij, *Linking entrepreneurial orientation and business performance: Mediating role of knowledge management orientation*. Pacific Business Review International, 2018. 10(8): p. 174-183.
71. Abdulsamad, A., et al., *The Importance of Entrepreneurial Orientation's Dimensions in Influencing the Organizational Performance of Food and Beverage SMEs*. Advances in Social Sciences Research Journal, 2020. 7(12): p. 81-99.
72. Durrah, O., S.M. Ghouse, and T. Alkhalaf, *Motivations and behaviours of rural women entrepreneurs in Oman*. International Journal of Gender and Entrepreneurship, 2024. 16(3): p. 402-421.
73. Jandab, A., et al., *IT-Based Innovation and New Product Development Performance in Yemen: The Moderating Role of Intellectual Property*. International Journal of Business Society, 2019. 3(11): p. 1-8.
74. Hintikka, J., et al., *Let's be entrepreneurs–Finnish youth's attitudes toward entrepreneurship*. Journal of Enterprising Communities: People and Places in the Global Economy, 2022. 17(4): p. 856-874.
75. Ridha, R.N. and B.P. Wahyu, *Entrepreneurship intention in agricultural sector of young generation in Indonesia*. Asia pacific journal of innovation and entrepreneurship, 2017. 11(1): p. 76-89.
76. Doanh, D.C. and T. Bernat, *Entrepreneurial self-efficacy and intention among Vietnamese students: A meta-analytic path analysis based on the theory of planned behavior*. Procedia Computer Science, 2019. 159: p. 2447-2460.
77. He, W. and L. Ding, *Rural Development and Entrepreneurship: Exploration of entrepreneurial intention in rural area among Chinese University Students*. Sage Open, 2023. 13(3): p. 21582440231198811.
78. Audretsch, D.B. and M. Belitski, *Towards an entrepreneurial ecosystem typology for regional economic development: The role of creative class and entrepreneurship*. Regional Studies, 2021. 55(4): p. 735-756.
79. Liang, C.-L. and P. Dunn, *Entrepreneurial Profile, Characteristics, Expectations, and Outcomes-An Empirical Study to Compare Rural Entrepreneurs with Urban Entrepreneurs*. American Journal of Entrepreneurship, 2014. 7(2).

80. Ali, J., M. Burhan, and Z. Jabeen, *Factors affecting entrepreneurial intention among the rural population in India*. *European Business Review*, 2023. 35(1): p. 74-91.
81. Nabi, G., et al., *The impact of entrepreneurship education in higher education: A systematic review and research agenda*. *Academy of management learning & education*, 2017. 16(2): p. 277-299.
82. Ajzen, I., *The theory of planned behavior: Frequently asked questions*. *Human behavior and emerging technologies*, 2020. 2(4): p. 314-324.
83. Ferreira, J.J., C.I. Fernandes, and S. Kraus, *Entrepreneurship research: mapping intellectual structures and research trends*. *Review of Managerial Science*, 2019. 13(1): p. 181-205.
84. Shirokova, G., O. Osiyevskyy, and K. Bogatyreva, *Exploring the intention-behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics*. *European management journal*, 2016. 34(4): p. 386-399.
85. Sieger, P. and E. Monsen, *Founder, academic, or employee? A nuanced study of career choice intentions*. *Journal of Small Business Management*, 2015. 53: p. 30-57.