



Entrepreneurship Education and Student's entrepreneurial Intention. The Mediating Role of University Entrepreneurial Climate

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Abstract

The purpose of this research is to examine the mediating effect of university entrepreneurial intention in the relationship between Entrepreneurship education and student entrepreneurial climate. Entrepreneurship is an important source of job creation, innovation, and sustainable economic development overall countries. university students are considered the most promising source of entrepreneurs. Consequently, governments across the world take entrepreneurship as a priority to build an entrepreneurial system ranging from policy supply, support, entrepreneurship education, and atmosphere creation to encourage college students to start out a venture. The research conducted was based on a structured questionnaire was distributed on a sample of 201 students in Egyptian universities both public and private. Correlation and regression analyses were performed to test the research hypotheses. The results demonstrate a significant positive effect of Entrepreneurship education on Student's intention towards being an entrepreneur in the future. At the same time, there is a significant negative effect of the mediating role of the university entrepreneurial climate in the relationship between entrepreneurship education and student intention. This research should support universities in Egypt to increase the awareness of the students towards the importance of entrepreneurship and provide them with entrepreneurship education. It contributes to the literature by considering it as one of the growing empirical studies that will tackle the role of entrepreneurship education in both public and private universities in Egypt. The research results will support researchers and practitioners in gaining insights into the future impact of entrepreneurship education in Egypt.

Keywords: Entrepreneurial Education, Student Intention, University Entrepreneurial Climate, Theory of Planned Behavior.

1. Introduction

The presence of entrepreneurship is considered a driver for economic growth and a sustainable economy for any country. For this reason, entrepreneurial activity is essential for a successful and stable economy.

As of now, the Egyptian government's focus is on achieving Egypt Vision 2030, which includes many pillars, one of which is a high-quality education system available for all. The Egyptian government is promoting entrepreneurship education in most universities in Egypt. One of the most influential partners in enhancing entrepreneurship education is the Academy for Scientific Research and Methodology. It presents a comprehensive guide for the university to construct an entrepreneurship club for the strategic development of education as well as for the development of scientific and research outputs. Preparing students for entrepreneurship and being able to turn ideas into real-world solutions is now a very important part of Egypt's economic development and diversifying its income sources.

According to the labor market analysis presented in the report of the Central Authority for Public Mobilization and Statistics (unemployment and the labor force in Egypt through the third quarter of 2018), Young university graduates are the dominant feature in the form of unemployment in Egypt, where the unemployment rate among young people without a university qualification in the 18–29 age group (18–29 years) is 7.26%, while the unemployment rate among young people in the age group (18–29 years) with a university qualification is 7.37%, which is why youth unemployment in Egypt is high by all standards. The challenge is not just to create more jobs, but to create a positive environment conducive to workers, addressing the major

obstacles to the intention of working. Entrepreneurship Education, simplifying the procedures required to facilitate the market entry process for new entrepreneurs. Creating a generation of entrepreneurs capable of creating investment jobs for themselves and others will reduce the unemployment rate and provide a new channel for students after graduation to start their own business and develop the economy of the country.

One of the reasons for the increase in the unemployment rate in general is the reluctance of university graduates to become entrepreneurs, in other words. Starting a small business is often seen as a non-preferred employment option for graduates, as a person is forced to face unexpected daily situations and many challenges and can sometimes feel frustrated by the difficulties of starting a new project. Consequently, the lack of entrepreneurial education in schools and universities may lead to a decrease in the attractiveness of university graduates as entrepreneurs.

In today's world, there is no government in any country that can provide employment opportunities to accommodate all graduates. This means that there is a need to radically change the way graduates think and transform them from a job search mentality to a mentality of job creation. In order to achieve their future aspirations, and against this background, the fact that the graduate is a pioneer has become necessary. It is not a luxury for graduates of higher education.

One of the main aspects supporting the development of entrepreneurial attitudes and behaviors has been identified as entrepreneurship education (Potter, 2008). As a result, numerous stakeholders (e.g., public institutions, academic organizations) have expressed greater interest in the efficacy of

entrepreneurship education programs and hence their contribution to the individual decision to become an entrepreneur (Fayolle & Gailly, 2013).

Additionally, if teaching entrepreneurship to university students is difficult and time-consuming, diverse society can foster creativity and entrepreneurship. The technique becomes substantially more difficult when applied in developing countries where there are many pressing limitations (Fischer et al., 2018; Foss and Gibson, 2015).

In the same context "entrepreneurial intent," means that they want to start a business (Krueger, 1993, p. 6). This phrase refers to the idea that a person's decision to take part in the formation of a new business is more deliberate and intentional than anything random (Ajzen, 2015). That leads to people starting enterprises as a way of giving back.

Ajzen's Theory of Planned Behavior has been widely used to explain and forecast engagement and resistance to start entrepreneurial behavior to the point that the process of entrepreneurship, particularly new venture creation, is a carefully figured and purposeful process. Additionally, Fayolle and co-authors (2014) suggest that purpose is a motivating factor for engaging in some behaviors, including entrepreneurial action. Over the years, many factors have led to changes in how universities are structured and what they are expected to achieve (e.g., research, innovation, social

A number of studies have shown that entrepreneurship education academic programs have a significant impact on student intentions (e.g., Fayolle, Gailly, & Lassas-Clerc, 2006; Souitaris, Zerbinati, & Al-Laham, 2007). According to other studies, their impact is insignificant (Oosterbeek, van Praag, Ijsselstein, 2010; von Graevenitz et al., 2010).The government has placed a strong emphasis on the importance of higher education institutions in

promoting individual entrepreneurship. Despite this, research on the mediating effects of the entrepreneurial climate on student intention is lacking. There are still a lot of questions in this area that need to be addressed. This research aimed to investigate how entrepreneurship education impacts students' entrepreneurial intentions. The entrepreneurial climate of the university from the other hand, mediates the relationship between entrepreneurship education and student entrepreneurial intention. For this aim, it offers practical and effective solutions for enhancing entrepreneurship education and enhancing university students' entrepreneurial intentions, which are based on real-world experiences. The following questions are addressed in this research: Students' enthusiasm in creating their own firms may be linked to their education in Entrepreneurship. Is there a relationship between entrepreneurship education and student intention that is mediated by the university's entrepreneurial climate? Further research is suggested, while the conclusion highlights the study's limitations.

2. Theoretical framework

The approaches used to study entrepreneurial behavior have changed over the years. Three main approaches can be distinguished for studying particularly the decision to become an entrepreneur: a personality traits approach, a socio-demographic approach, and cognitive approaches. As might be expected, the three approaches reflect different views and perspectives on entrepreneurship.

2.1 Entrepreneurship Education approaches

The concept of entrepreneurship programs has gained widespread recognition since the 1970s and 1980s. Some scholars focus on encouraging

students in learning environments to start new businesses (Nielsen & Gartner, 2017). Others focus on developing students' skills (e.g., creativity, risk taking) and through project-based learning approaches (Zhao, 2012). Diverse researchers describe entrepreneurship education differently, according to their perspectives and objectives for entrepreneurship education. The majority of EEPs teach skills while also attempting to instill mindsets through their activities (DuvalCouetil, 2013). Lián and Fayolle (2015) did a comprehensive analysis of 409 published publications on entrepreneurship education programs and students entrepreneurial intention.

The trait approach places an emphasis on an individual's personal characteristics and the personality traits that go along with them. Between these include a desire for success, a tendency for risk-taking, and a sense of control. As pointed out by Reynolds (1997), statistically significant relationships have been demonstrated between specific personality traits and being an entrepreneur. However, value of these personality traits for the prediction of entrepreneurship has been found to be quite limited. Also, with regard to entrepreneurship education, the trait approach has yielded poor results.

A multidimensional model of venture growth was developed and tested by Baum, Locke and Smith (2001). The socio-demographic approach is based on the assumption that people with similar backgrounds will have similar characteristics. Entrepreneurial behavior is far too complex to be predicted by such factors alone.

Researchers have turned to more cognitive models to better understand the complexity of entrepreneurial behavior. Cognitive approaches to entrepreneurship look at how entrepreneurs think and behave but also why they

think and act as they do. Entrepreneurial intention is a key element in understanding the process of starting a business. In general, the stronger the intention, the more likely it is that the associated behavior will be carried out in the future (Ajzen, 1991). A primary function of entrepreneurship education programs is to raise student awareness of entrepreneurship as a viable career option.

Entrepreneurial intention is a key element in understanding the process of starting a business. While the intention to carry out a given behavior depends on a person's attitudes towards the behavior, attitudes are largely shaped by exogenous factors. Exogenous factors may include personality traits and socio-demographic factors. One of the main roles for entrepreneurship education programs is to increase student awareness of entrepreneurship as a viable career option.(Streeter, D.H., Kher, R. and Jaquette, J.P,2011)

2.2 Entrepreneurial Intention

Particularly in entrepreneurship research, there are several variables which have been shown to affect entrepreneurship intention. Moreover, the most studied variables include, but are not limited to, entrepreneurial attitudes and perceived behavioral control as indicated in the Theory of Planned Behavior (Ajzen, 2002).

In their study, Ndofirepi and Rambe (2017) found that students' entrepreneurial intents are influenced by their "risk-taking and competition," as well as their "optimism, innovativeness, and risk-taking" (Ozaralli & Rivenburgh, 2016). (Ozaralli & Rivenburgh, 2016)

According to Krueger Jr. and Brazeal (1994), self-efficacy is an important element in entrepreneurial goals (Zhao and colleagues 2005). One's

own degree of interest in entrepreneurship can be substantially increased if one knows an independent business owner who is either close to one's family, friends, or coworkers. Generally, students who want to start their own business are considered to have a higher level of self-awareness, an entrepreneurial spirit, and an internal locus of control than those who aim to follow more conventional professional pathways. the ability to see the bright side of things.

Considering the contrasting outcomes of previous studies, indicates that additional study is needed on Entrepreneurial Education and its impact on learners.

(Dohse&Wlater,2010) have found that entrepreneurship education works best when delivered to students through activities such as seminars than through more traditional lecture formats and may speak to why some departments have higher success rates in entrepreneurial intention. They also found that “regional context” had a significant impact on entrepreneurship education. While neither gender nor familial or celebrity connections to the business world seemed to have an impact on students enrolled in entrepreneurship education programs, a favorable disposition and engagement in workshops did (Pruett, 2012). Compare this to other studies (Rodrigues, Dinis, do Paco, Ferreira, & Raposo, 2012) that show that students with negative entrepreneurial intention still have the same level of intention after attending an entrepreneurship education programs, while high entrepreneurial intention still have the same entrepreneurship education programs after training. (Yet Neneh,2014) reports higher entrepreneurial intention means for males than females, and (Yukongdi & Lopa 2017) found a negative effect of education/training on entrepreneurship on student entrepreneurial intention. Thus, the argument as to whether participants are born or made is challenged

depending on the method of instruction, but this “nature versus nurture” contradiction has proven a challenge for those defending either side (Rodrigues et al., 2012). The theory of planned behavior and the entrepreneurial event model are two of the most frequently debated models of entrepreneurial intention. The entrepreneurial event model is the first of its type, a cognitive theory-based model of entrepreneurial intention. Desirability, risk, and reward all influence an individual's choice of entrepreneurial behavior. (Shapero, 1982)

(Bell, R., 2019) analyzed four qualities, namely innovativeness, pro-activity, risk aversion, and self-efficacy, in order to quantify the association between these four entrepreneurial characteristics of the individual students and their entrepreneurial intention across a number of academic disciplines.

Perceptions of practicality and willingness to act. the attraction of entrepreneurial behavior that an individual can sense is called "perceived desirability." There are two factors that determine whether or not an individual will start a business: feasibility and propensity to take action. (Ajzen, 1991) It's a fact. Worth mentioning that in addition to these three characteristics, trigger events play an important role in the entrepreneurial event model. (Choo, 2006)

To conclude, Entrepreneurial intention is drawn from the psychological idea of "intention." Indeed, the literature contains numerous definitions of intention. For example, according to (Bird, 2007) Intention is a state of mind in which an individual's attention, experience, and actions are directed toward a certain goal or path toward that goal. Academics have voiced their views on how an individual's entrepreneurial intention should be defined. Numerous researchers define entrepreneurial intention as a potential entrepreneur's attitude toward initiating entrepreneurial activities (Krueger, 1994); it is the

mental state of entrepreneurs intending to establish a new business or add value to an existing corporation (Wu, S.; Wu, L.F.,2008).In the context of the entrepreneurial process, entrepreneurial intention serves as a motivation for people who want to start and manage new businesses. It has been proposed that entrepreneurial intention is the psychological proclivity of an individual to pursue entrepreneurship in the future (Krueger,1993).

2.3The influence of personality characteristics and contextual on entrepreneurial intentions.

The theory of planned behavior is a well-established paradigm that has been extensively studied. The original idea was put forth by (Ajzen 1988, 1991) When it comes to social behavior, the Theory of Planned Behavior assumes that human beings are rational thinkers who can anticipate and control their actions. Behavioral intention can thus be seen as an immediate antecedent to behavior but is, itself, influenced by three key factors: attitudes toward the behavior, subjective norms, and perceived behavioral control. For the issue of entrepreneurship, the constructs from the TPB are defined as follows: Attitudes toward Entrepreneurship refer to the degree to which a person has a favorable or unfavorable evaluation or appraisal of becoming an entrepreneur or its consequences. Attitudes toward entrepreneurship include not only affective (e.g., I like the idea, I find the idea attractive) but also evaluative considerations (Linan & Chen, 2009). If someone expects the outcome of becoming an entrepreneur to better his or her position, that person is more likely to become an entrepreneur.

When Baum, Locke and Smith (2001) developed and tested a multidimensional model of entrepreneurship, for instance, their conclusion was

that personality traits are important predictors of entrepreneurship but not directly and not in isolation; their effects are mediated by such factors as motivation and strategy. In other words, personality factors may influence initial entrepreneurial perceptions and only thereby final entrepreneurial outcomes (Ajzen & Fishbein, 1980; Simon & Houghton, 2002).

Individuals are also surrounded by a range of contextual factors which can push and pull them in various directions (Hisrich, 1990). Entrepreneurial intentions can thus be expected to be based on a combination of personal and contextual variables (Boyd & Vozikis, 1994). To date, however, social-cognitive models of entrepreneurship including the Theory Planned Behavior have not integrated personality characteristics — such as the need for achievement — with contextual factors — such as perceived contextual support (Burmúdez, 1999). Entrepreneurial intentions and behavior are rarely studied in relation to the components of the Theory of Planned Behavior as mediators. Personality and contextual characteristics have not before had an impact on students' motivating antecedents for entrepreneurial intents and their entrepreneurial ambitions. Having an entrepreneurial mindset refers to a person's desire to establish a new company. It is vital to note that "entrepreneurship intention" is defined as "the self-acknowledged conviction by an individual that they wish to set up a new company endeavor and intentionally plan to do so in the future" (Thompson, 2009).

2.4 Relationship between entrepreneurship education and entrepreneurial intentions

Over the last decade, the quantity and prominence of entrepreneurship education programs at colleges and universities has risen dramatically globally

(Fayolle, 2013; Kuratko, 2005; Neck & Greene, 2011). However, little study on the efficiency of these programmes has been undertaken, particularly in underdeveloped nations such as Egypt. As Fayolle and Gailly (2013) observe, Research on the outcomes of entrepreneurial education is lacking. The impacts of entrepreneurial education, according to von (Graevenitz et al.,2010), are as yet unknown.

The findings of the few existing studies are, at best, confusing or inconsistent (Weber,2012). Some of the contradictions discovered about the impacts of entrepreneurship education may be explained by methodological and theoretical limitations (Fayolle, 2013; von Graevenitz, et al., 2010). Previously conducted research, for example, made no distinction between elective and mandatory programs. Voluntary versus obligatory participation in entrepreneurship courses is likely to have an effect on the course's outcomes, but we do not know how. As a result, Oosterbeek et al. (2018) advocated for the testing of several program versions, which the current research attempted to accomplish.

Another study discussed here tried to close the theoretical and methodological gaps that characterize our understanding of entrepreneurship education's effectiveness. At the university level, the primary objective of entrepreneurship education is to positively affect students' entrepreneurial attitudes and inclinations (Fayolle & Gailly, 2013). The Theory of Planned Behavior establishes a good conceptual and methodological foundation for evaluating attempts to accomplish this (Fayolle & Gailly, 2013; Souitaris et al., 2007). hypotheses have been developed as a consequence of a review of the previous literature.

H1: Entrepreneurship Education Is positively related to Student's Entrepreneurial Intention.

H2: There is significant relationship between entrepreneurship education and university entrepreneurial climate.

H3: There is significant relationship between university entrepreneurial climate and Student's Entrepreneurial Intention.

H4: University Entrepreneurial Climate Plays a mediating role between Entrepreneurship Education and Student's Entrepreneurial Intention.

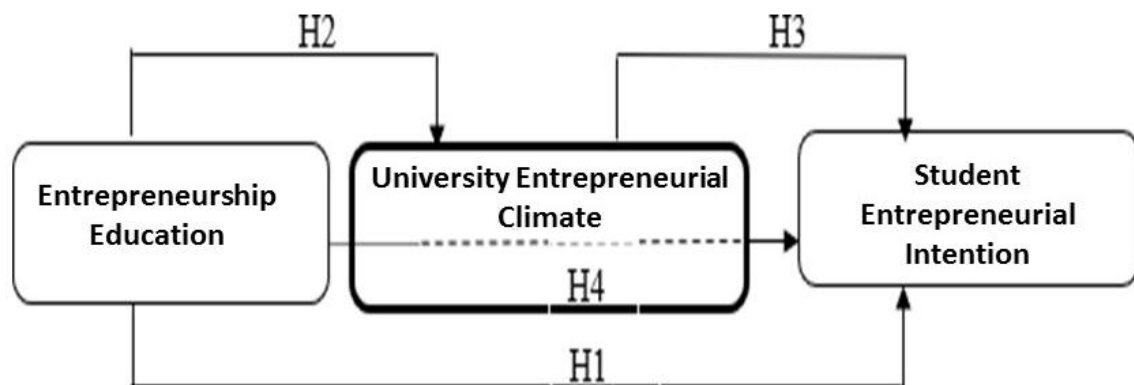


Figure 1: Research model

2.5 University Entrepreneurial Climate

Nowadays, with the focus on achieving the principles of sustainable development and Egypt's vision 2030 for the role of education in Egypt's social transformation over the next years. In this regard, three specific objectives have been set for the development of human potential: Improving The quality of education system in line with international regulations. Improving the competitive abilities of the education system and learning outcomes across different regions and housing blocks. The desired training and educational system focus mainly on the student, encourage the critical thinking,

and aims to produce technologically and highly qualified graduates. To achieve that Egypt vision 2030, government has adopted ambitious plans and programs in the fields of education, training, and human resources to improve graduates' performance and raise the national income to raise the citizen standard of living.

The government is investing more than ever in entrepreneurship and innovation promotion and encouragement. As a result, approaches and procedures for developing entrepreneurship in public and private universities have been proposed. One of the most successful projects presented by the government to Egyptian students is The Rowad 2030 Project of the Ministry of Planning and Economic Development launched the "One Million Entrepreneurs" campaign last April, which aims to qualify one million entrepreneurs and contribute to the establishment of 50,000 start-up companies by 2030.

5The "One Million Entrepreneurs" campaign targets Egyptian youth of all ages, groups, and different educational levels. The entire training program is offered online, with highly qualified trainers, and entrepreneurship training programs in both Arabic and English, in addition, to sign language. 'Rowad 2030' (entrepreneurship) project of the Ministry of Planning and Economic Development announced that several cooperation protocols within the framework of the "One Million Entrepreneurs" campaign were signed with both public and private universities in Egypt.

To accomplish this purpose, Egyptian universities investigated a number of programs and methodologies including establishing entrepreneurship centers and introducing entrepreneurship courses such as "Fundamentals of Entrepreneurship and small business management" into undergraduate

education. Entrepreneurial attitudes and intentions are to be influenced, and students are encouraged to become job creators rather than job seekers, through this program. According to Jabeen and Mahmoud (2014), entrepreneurial climate refers to an enterprise's overall financial, political, economic, legal, technological, and sociocultural environment. Entrepreneurial Climate refers to the external or macro environment that exists beyond the firm's influence and control and is composed of a variety of external elements (social and physical) that play a key role in entrepreneurship development (Ghosh & Bhowmick, 2014).

The formal and informal elements of the institutional environment that are embodied in the contributions of government incentives, structural support systems, bureaucratic processes, risk proclivity, and informal networks define the construction of entrepreneurial climates (Roxas, Lindsay, Ashill and Victorio, 2006). For entrepreneurs, the elements that shape the entrepreneurial climate serve as both a motivator and a barrier (Shane, 2003).

(Fetters, M.L; Greene, P.G; Rice, M-P,2010) found that entrepreneurship involves the pursuit, evaluation, and exploitation of new business opportunities. In order to be successful, these activities will require a wide range of resources from a variety of sources, including the government, nonprofits, and individuals. As a growing body of evidence suggests, universities are essential to the development of entrepreneurship in the nation. The primary focus of university entrepreneurship support is to help students learn how to start their own businesses, although universities may also provide other types of assistance, depending on their organizational structure. As a result, the term "university entrepreneurship support" encompasses more than only entrepreneurial instruction, but rather encompasses a wide range of

support activities for entrepreneurship. (Lu, G., Song, Y. and Pan, B., 2021) proposed, based on a review of previous studies, that university entrepreneurship support classified into five categories:

entrepreneurial education, entrepreneurial climate, entrepreneurship management measures, entrepreneurial practical training conditions and entrepreneurship services programs.

3. Research Methodology

This research implements the quantitative approach to investigate the relationship between Entrepreneurship education and Students' entrepreneurial intention as University entrepreneurial climate acts as a mediator in this relation. A questionnaire was developed and distributed on students in Egyptian both public and private universities to fulfill what the researcher aim to measure. Consequently, the sample size for the questionnaire was distributed among students in both public and private in Egypt, so the sampling technique is convenient sampling technique where the sample is selected according to the easy access to respondents. According to Saunders et al. (2016), the sample size is calculated according to the 95% confidence level for a large population size, where 385 respondents are selected for the sample. There fore,385 questionnaires were distributed and collected 201 valid complete questionnaires for the analysis. The questionnaire design is divided into six sections; the first section assessed students' self-efficacy. These measuring items were adapted in part from (McGee,2009). The second section examined students' entrepreneurial intention adapted from (Thompson's,2009). Entrepreneurship Outcome Expectations was the third section, and the measurement was adapted from (Krueger,2017). The fourth section introduces

students to a goal-directed activity statements adapted from (Farmer & Kung-McIntyre,2011). The fifth section discusses questions about the entrepreneurial climate at universities and is derived from (Lu, G., Song, Y. and Pan, B., 2021) The final section discusses the demographics of students (Educational level, nationality, university name) Consequently ,the following stages were involved in the research process: To begin, a study of the existing literature was conducted in order to determine the most relevant variables for further investigation. A questionnaire designed and piloted. Data was gathered and examined to identify the factors that have effect on student's entrepreneurial intention. In the questionnaire analysis, descriptive statistics, reliability and validity, correlation, and regression tools were utilized through the statistical package for social sciences (SPSS) and the analysis of moment structures (AMOS) package were employed to analyze the data.

4. Results and Findings

This section will introduce the field study with the main findings and results after running the data analysis.

4.1 Data Testing using Validity and Reliability Analyses

Validating data entails determining its validity and dependability. The validity test is regarded as the most critical prerequisite for the test's quality. When a test has a high degree of validity, the items are closely related to the test's aim. On the other hand, if a test's validity is low, it indicates that the items are unrelated to a certain job. The Average Variance Extracted (AVE), which should be bigger than 0.5, and the Factor Loading (FL), which should be bigger than 0.4 for each item, are two of the most important indicators of whether or not a study is true.

Additionally, the reliability test is a critical component of test quality. It is a measure of a measure's consistency. The greater the test's reliability, the more accurate it is. Cronbach's Alpha is the most frequently used test for reliability. Cronbach's Alpha coefficients range from 0 to 1. The closer the coefficients are to one, the more reliable the system. If the coefficient is greater than 0.7, it is considered sufficiently reliable.

Reliability

The term "reliability" refers to the degree to which a questionnaire, test, observation, or other measurement process consistently delivers the same results when repeated trials are conducted. Cronbach's Alpha coefficient was determined to determine the study instrument's reliability. This coefficient ranges from 0 (indicating no reliability) to unity (for maximum reliability).

Table (1): Values of Cronbach's Alpha coefficient

Dimensions		No. of Items	Alpha Coefficient
Entrepreneurship Education	Self-Efficacy	0.854	15
	Outcome Expectations	0.778	6
	Goal Directed Activity	0.856	5
University Entrepreneurial Climate		0.638	3
Student Entrepreneurial Intention		0.590	3

Table (1) demonstrates that all reliability coefficients are deemed acceptable, since each exceeds the benchmark of 0.60. Thus, it could be concluded that the study instrument is reliable.

Validity

The term "validity" refers to the degree to which an instrument measures what it claims to measure (Mangal,2013). Confirmatory Factor Analysis (CFA) was utilized to determine the construct validity.

Entrepreneurship Education

The model of entrepreneurship education scales is illustrated in the following figure

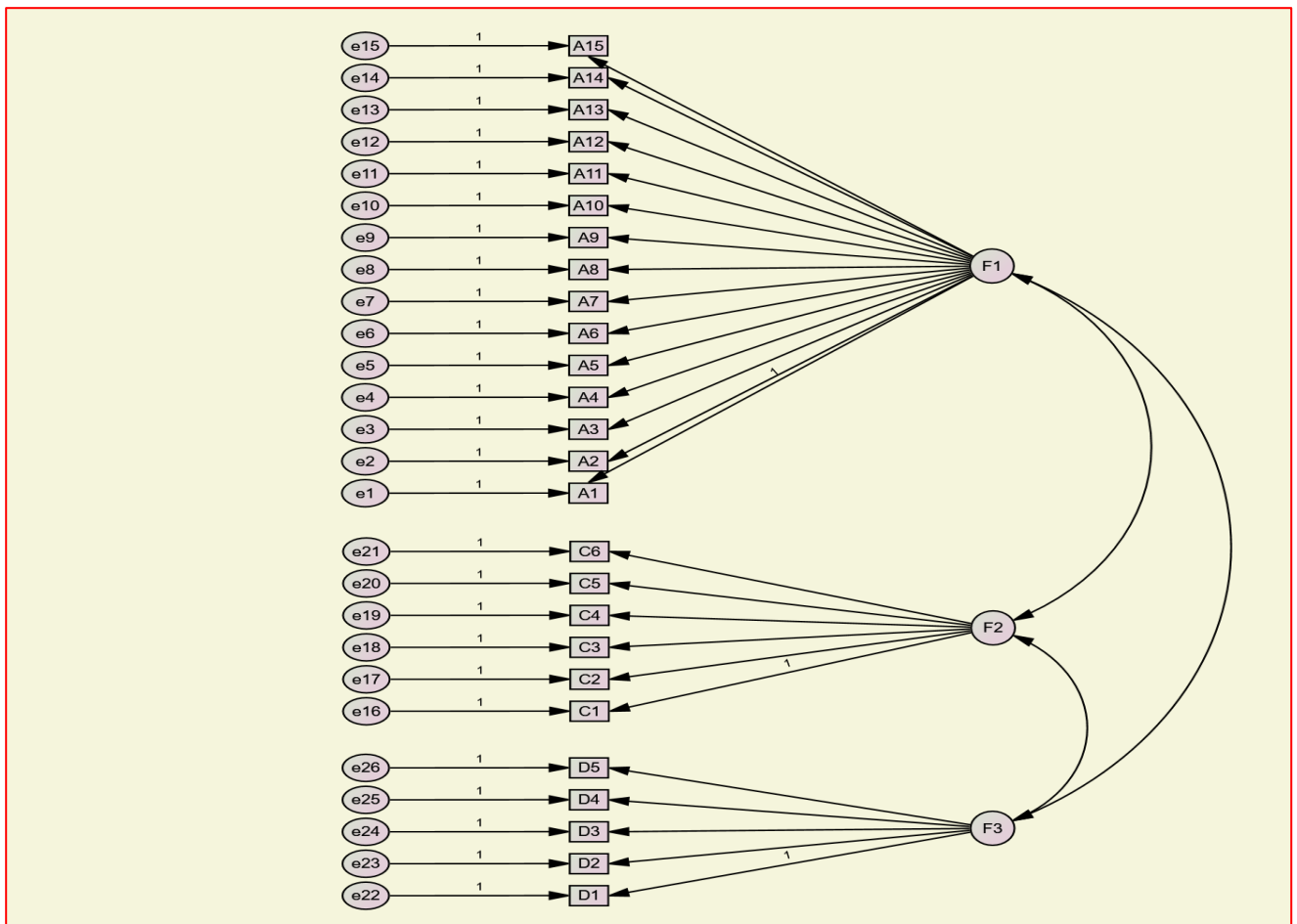


Figure2, Entrepreneurship Education Validity
F1: Self-Efficacy, F2: Outcome Expectations, F3: Goal Directed Activity

The results of the confirmatory factor analysis for the above model are shown in the following table.

Table (2): Results of the CFA for the Entrepreneurship Education model

Entrepreneurship Education Factors			Estimate	S.E.	C.R.	P-value
A1	<---	F1	1.000			
A2	<---	F1	0.875	0.143	6.131	0.0001
A3	<---	F1	0.835	0.134	6.233	0.0001
A4	<---	F1	0.992	0.156	6.357	0.0001
A5	<---	F1	1.020	0.158	6.461	0.0001
A6	<---	F1	0.894	0.152	5.901	0.0001
A7	<---	F1	0.878	0.148	5.953	0.0001
A8	<---	F1	1.217	0.172	7.092	0.0001
A9	<---	F1	0.860	0.140	6.129	0.0001
A10	<---	F1	0.976	0.144	6.800	0.0001
A11	<---	F1	0.508	0.143	3.551	0.0001
A12	<---	F1	0.733	0.146	5.012	0.0001
A13	<---	F1	0.883	0.142	6.221	0.0001
A14	<---	F1	0.889	0.142	6.238	0.0001
A15	<---	F1	1.018	0.153	6.642	0.0001
C1	<---	F2	1.000			
C2	<---	F2	1.149	0.179	6.427	0.0001
C3	<---	F2	1.055	0.173	6.098	0.0001
C4	<---	F2	1.188	0.174	6.820	0.0001
C5	<---	F2	1.112	0.177	6.289	0.0001
C6	<---	F2	1.146	0.175	6.564	0.0001
D1	<---	F3	1.000			
D2	<---	F3	0.931	0.078	11.910	0.0001
D3	<---	F3	0.977	0.094	10.406	0.0001
D4	<---	F3	0.942	0.085	11.056	0.0001
D5	<---	F3	0.771	0.083	9.274	0.0001

F1: Self-Efficacy, F2: Outcome Expectations, F3: Goal Directed Activity

The above table shows that all the relationships are significant at the 1% level. The model was evaluated using chi-square (a model fit measure).

University Entrepreneurial Climate

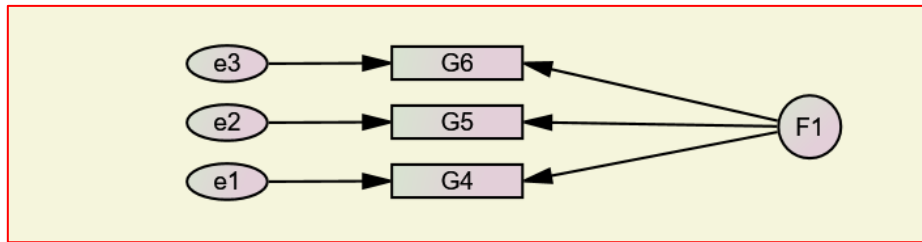


Figure3, University Entrepreneurial Climate Validity

F1: University Entrepreneurial Climate

The results of the confirmatory factor analysis for the above model are shown in the following table.

Table (3): Results of the CFA for the University Entrepreneurial Climate model

University Entrepreneurial Climate Factors	Estimate	S.E.	C.R.	P-value
G4 <--- F1	1.000			
G5 <--- F1	2.276	0.401	5.676	0.0001
G6 <--- F1	0.750	0.149	5.039	0.0001

F1: University Entrepreneurial Climate

The above table shows that all the relationships are significant at the 1% level. The model was evaluated using chi-square (a model fit measure).

Student Entrepreneurial Intention

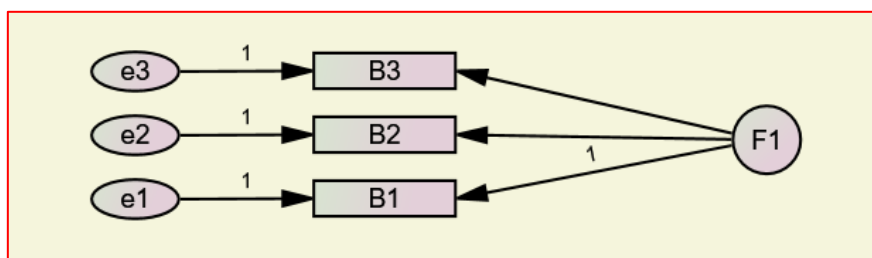


Figure 4, Student Entrepreneurial Intention Validity

F1: Student Entrepreneurial Intention

The results of the confirmatory factor analysis for the above model are shown in the following table.

Table (4): Results of the CFA for the Student Entrepreneurial Intention model

Student Entrepreneurial Intention Factors			Estimate	S.E.	C.R.	P-value
B1	<---	F1	1.000			
B2	<---	F1	1.044	0.286	3.655	0.0001
B3	<---	F1	0.671	0.174	3.856	0.0001

F1: Student Entrepreneurial Intention

The above table shows that all the relationships are significant at the 1% level. The model was evaluated using chi-square (a model fit measure).

4.2 Descriptive Analysis of the Sample

Table (5): Characteristics of the sample respondents

Characteristics		N	%
Nationality	Egyptian	187	93%
	Syrian	10	5%
	Yemeni	1	0.5%
	Iraqi	1	0.5%
	Palestinian	2	1%
	Total	201	100
University	Badr University	24	11.9%
	Egyptian Russian University	48	23.9%
	Egyptian Chinese University	29	14.4%
	Ain Shams University	17	9%
	Helwan University	19	9.5%
	Future University in Egypt	64	31.8%
	Total	201	100%
Educational Level	First year	2	1%
	Second year	15	7.5%
	Third year	72	35.8%
	Fourth year	94	46.8%
	Post graduate level	18	9%
	Total	201	100%

The nationality of respondents is shown in Table 5; reveals, (93%) of respondents were Egyptian students. Six institutions were chosen from the private and public sectors because they are well-known and pioneered the campus entrepreneurial club. Additionally, the Future University in Egypt signed a protocol with "ROWAD" 2030 for the purpose of preparing One Million Entrepreneurs from Egyptian students enrolled in all Egyptian universities. Moreover, the researcher chose those six universities due to time and financial constraints, as well as the researcher's capacity to obtain formal approval from department heads or faculty deans to distribute the questionnaires to students.

In terms of educational level, 46.8 % respondents were in fourth year, and 35.8 % were in third year. This indicates that entrepreneurship education had the greatest impact on third- and fourth-year students.

4.3 Testing hypothesis

The first main hypothesis states that:

H1: Entrepreneurship Education Is positively related to Student's Entrepreneurial Intention.

To test this hypothesis, simple regression analysis is used. The dependent variable is " Student's Entrepreneurial Intention", and the independent variable is " Entrepreneurship Education". Results of the analysis are shown in the following table.

Table (6): Results of simple regression analysis for testing the first main hypothesis

Independent Variables	<i>B</i>	Beta	T-Test	
			T	Sig.
Entrepreneurship Education	0.713	0.564	9.624	0.000
<i>F</i>	92.625			
Sig.	0.000			
<i>R</i> ²	0.318			
<i>R</i>	0.564			

Dependent Variable: Student Entrepreneurial Intention

From the above table, it could be concluded that:

Overall Significance

The results indicate that the overall regression model is significant ($F = 92.625$, $P\text{-value} < 0.05$).

The value of Simple correlation coefficient (R) between all independent variable and the dependent variable (Student Entrepreneurial Intention) is 0.564, indicating a moderate correlation.

The value of coefficient of determination (R-square) is 0.318, i.e. the independent variables collectively explain 31.8% of the variance in the dependent variable (Student Entrepreneurial Intention).

Significance of the independent variables

The results of T -Test showed that There is a statistically significant relationship between the independent variable " Entrepreneurship Education" and the dependent variable "Student Entrepreneurial Intention" ($P\text{-value} < 0.05$). The value of the estimated regression coefficient is 0.713, indicating that the two variables are positively related.

The first main hypothesis is divided into three sub-hypotheses as follows:

H1.a: Student's Self-efficiency Is positively related to Student's Entrepreneurial Intention.

H1.b: Student's outcome expectations Is positively related to Student's Entrepreneurial Intention.

H1.c: Student's Goal-Directed Activity Is positively related to Student's Entrepreneurial Intention.

Table (7): Results of simple regression analysis for testing the first sub-hypotheses

Independent Variables	<i>B</i>	Beta	T-Test	
			T	Sig.
Self-efficiency	0.310	0.267	4.196	0.000
outcome expectations	0.001	0.001	0.009	0.993
Goal-Directed Activity	0.392	0.423	5.094	0.000
<i>F</i>	34.985			
Sig.	0.000			
<i>R</i> ²	0.348			
<i>R</i>	0.590			

Dependent Variable: Student Entrepreneurial Intention

The value of multiple correlation coefficients (*R*) between all independent variables and the dependent variable (employee engagement) is 0.590, indicating a moderate correlation. As shown in above table, there is a significant relationship between self-efficiency and student entrepreneurial intent. Likewise, there is a significant relationship between student entrepreneurial intent and goal-directed activities. Accordingly, the first main hypothesis is accepted.

H2: There is significant relationship between entrepreneurship education and university entrepreneurial climate.

To test this hypothesis, simple regression analysis is used. The dependent variable is " University Entrepreneurial Climate ", and the independent

variable is " Entrepreneurship Education". Results of the analysis are shown in the following table.

Table (8): Results of simple regression analysis for testing the second hypothesis

Independent Variables	<i>B</i>	Beta	T-Test	
			T	Sig.
Entrepreneurship Education	0.040	0.040	0.568	0.571
<i>F</i>	0.323			
Sig.	0.571			
<i>R</i> ²	0.002			
<i>R</i>	0.040			

Dependent Variable: University Entrepreneurial Climate

The results shown in (Table 8) revealed that there is no significant relationship between entrepreneurship education and university entrepreneurial climate. Accordingly, the second hypothesis is rejected.

H3: There is significant relationship between university entrepreneurial climate and Student's Entrepreneurial Intention.

Table (9): Results of simple regression analysis for testing the third hypothesis

Independent Variables	<i>B</i>	Beta	T-Test	
			T	Sig.
University Entrepreneurial Climate	0.023	0.018	0.257	0.798
<i>F</i>	0.066			
Sig.	0.798			
<i>R</i> ²	0.000			
<i>R</i>	0.018			

Dependent Variable: Student Entrepreneurial Intention

The results shown in (Table 9) revealed that there is no significant relationship between university entrepreneurial climate and Student Entrepreneurial Intention. Accordingly, the third hypothesis is rejected.

H4: Entrepreneurial Climate at the University Plays a moderating role between Entrepreneurship Education and Student's Entrepreneurial Intention.

In this hypothesis, "Entrepreneurship education" is the independent variable, "student entrepreneurial intention" is the dependent variable, and "University entrepreneurial climate" is the potential mediator variable. To test the fourth main hypothesis, path analysis methodology is used. This is done using AMOS program. Results of the analysis are shown in the following table.

Table (10): Results of path analysis for testing the fourth main hypothesis

path			Estimate	S.E.	C.R.	P
UEC	<---	EE	.040	.070	0.570	0.569
SEI	<---	EE	.713	.074	9.644	0.000
SEI	<---	UEC	-.006	.075	-0.077	0.939

The first path: from Entrepreneurship education to University entrepreneurial climate. the results of T-Test showed that there is no statistically significant relationship between " Entrepreneurship education " and " University entrepreneurial climate " (P-value > 0.05).

The second path: from Entrepreneurship education to Student entrepreneurial intention. The results of T-Test showed that there is statistically significant relationship between " Entrepreneurship education " and " Student entrepreneurial intention " (P-value<0.05).

The third path: from University entrepreneurial climate to Student entrepreneurial intention. The results of T-Test showed that there is no statistically significant relationship between "University entrepreneurial climate" and "Student entrepreneurial intention" (P-value > 0.05).

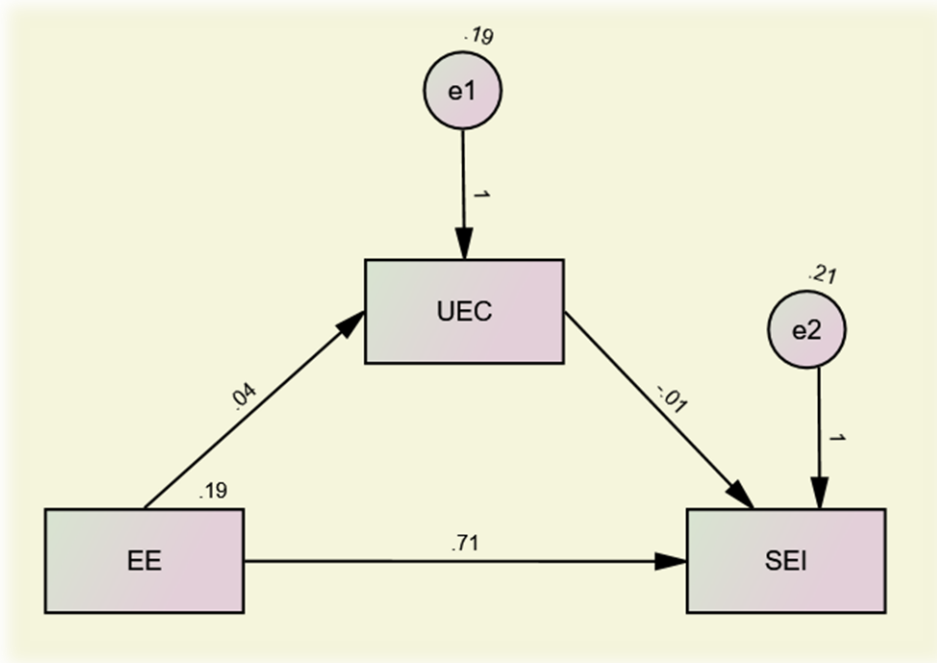


Figure 5, Results of path analysis of relations between study variables

UEC: University Entrepreneurial Climate

EE: Entrepreneurship Education

SEI: Student's Entrepreneurial Intention

Total, Direct and Indirect Effects

The following matrices show the values of total, direct and indirect effects of the three variables of interest (Entrepreneurship Education, University Entrepreneurial Climate and Student's Entrepreneurial Intention)

Matrix of total effects

	EE	UEC
UEC	.040	0.000
SEI	0.713	-0.006

Matrix of direct effects

	EE	UEC
UEC	0.040	0.000
SEI	0.713	-0.006

Matrix of indirect effects

	EE	UEC
UEC	0.000	0.000
SEI	0.000	0.000

Based on the previous results, it could be concluded that University Entrepreneurial Climate has no mediating effect on the relationship between Entrepreneurship Education and Student's Entrepreneurial Intention. Consequently, the fourth main hypothesis is rejected.

5. Discussion and conclusion

The majority of Egyptian universities and colleges provide business education, as it shapes the high demand among students and employers. Within the discipline of business, students have access to a variety of entrepreneurship-related courses, including project management, financial management, marketing, human resource management, and leadership. This research examined the importance of entrepreneurship education in promoting students' entrepreneurial intention to create a venture. The research outcomes revealed that entrepreneurship education had a direct influence on student's entrepreneurial intention while the finding of this research indicates no direct influence of university entrepreneurial climate and student entrepreneurial intention. Moreover, the results revealed that there is no significant relationship between entrepreneurship education and university entrepreneurial climate. Eventually, one could conclude from the combination of the prior analyses (correlation and regression analysis) that perceived university entrepreneurial climate does not strongly support the relationship between entrepreneurship education and student entrepreneurial intention; this lack of support could be explained by a range

of factors. To begin, there may be a disconnect between the perceived entrepreneurial climate of universities and the actual entrepreneurial education programs offered by public and private universities. To fill this research gap, universities should take priority delivering on the promises made to students in their entrepreneurship messages. They ought to provide a comprehensive entrepreneurial support based on different pillars, such as: entrepreneurship training and practices to be provided on campus and also on a digital platform like Coursera. Moreover, to overcome the gap between university entrepreneurial climate and student entrepreneurial intention, the university should take into consideration the comprehensiveness and variety in entrepreneurship curriculum for all students not only in last stage before graduation but also from the first year in the university. This is will be attained through the assistance of entrepreneurship educators through developing program syllabuses that comprehend entrepreneurship skill inventories, To ensure a greater connection between training programs and productive entrepreneurial outcomes by capturing both psychological attributes such as risk-taking inclination, opportunity recognition, and business model canvas.. Furthermore, entrepreneurship educators should take into consideration the entrepreneurial mindset and practice are dominant, the impact of the university-specific factors will be enhanced and will ultimately lead to innovation improvement.

6. Practical Implications

The purpose of this research was to determine the extent to which an entrepreneurship education had an effect on students' entrepreneurial intentions at both private and public universities in Egypt. Additionally,

this research sought to quantify the entrepreneurial climate at universities as a mediating factor on the relationship between entrepreneurship education and student entrepreneurial intention. The findings suggested that the entrepreneurial climate at the university had a negative effect on students' entrepreneurial intentions. As a result, universities should constantly work to close the gap between perceived entrepreneurial education programs and actual university entrepreneurial support.

Furthermore, the results indicate that when students perceive strong entrepreneurship education ideals and university support, this increases their readiness to learn how to start a business, as well as their want to participate in the university's social entrepreneurship activities. As a result, universities should focus their efforts on developing innovative ways to provide comprehensive entrepreneurial support, while also respecting students' unique needs and expectations, listening to their suggestions, regularly assessing the extent of their support and its impact on students, clearly communicating the strengths and weaknesses of current entrepreneurial support, and taking targeted measures to address these weaknesses.

7. Limitations and future research

Some limitations of this research should be mentioned in order to provide future research opportunities. First, this research was limited to six universities operating in Egypt; this research findings cannot be applied to all Egyptian universities, public or private, due to the wide range of approaches and goals among them. Because of the reliance on self-reporting, there's a chance that the data collecting process will introduce

bias. Other moderating and mediating variables that could be included to the model should be examined in future studies. which could affect the relationship between Entrepreneurship education and student entrepreneurial intention such as classroom climate, student feedback to the entrepreneurship curriculum, entrepreneurial characteristics for students, and also taking into consideration the cultural context and values. Moreover, it is necessary to use a different data collection instrument such as "interviews" in order to obtain more accurate information about the student's entrepreneurial intention and their expectations. further research could use the academic staff in evaluating the university entrepreneurial support according to the current resources and facilities available for the university entrepreneurship plan. Another future area to be considered, digital entrepreneurship, and this seems an area likely to grow in popularity in the field of entrepreneurship education in Egyptian universities.

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ملخص:

الغرض من هذا البحث هو دراسة الأثر الوسيط لمناخ ريادة الأعمال بالجامعة في العلاقة بين تعليم ريادة الأعمال ونية ريادة الأعمال الطلابية. ريادة الأعمال هي مصدر مهم لخلق فرص العمل والابتكار والتنمية الاقتصادية المستدامة عموم البلدان. ويعتبر طلاب الجامعات المصدر الواعد لرواد الأعمال. وبالتالي، تأخذ الحكومات في جميع أنحاء العالم ريادة الأعمال كأولوية لبناء نظام ريادة الأعمال الذي يتراوح بين توفير السياسات والدعم وتعليم ريادة الأعمال وخلق جو لتشجيع طلاب الجامعات على بدء مشروع. واستند البحث الذي أجري إلى استبيان منظم تم توزيعه على عينة من (201) طالب في الجامعات المصرية الحكومية والخاصة على حد سواء. وأجريت تحليلات الارتباط والانحدار لاختبار فرضيات البحث. تظهر النتائج تأثيراً إيجابياً كبيراً لتعليم ريادة الأعمال على نية الطالب في أن يكون رائد أعمال في المستقبل. وفي الوقت نفسه، هناك أثر سلبي كبير للدور الوسيط الذي يقوم به من آخر ريادة الأعمال في الجامعة في العلاقة بين تعليم ريادة الأعمال ونوايا الطلاب في ريادة الأعمال. ومن المفترض أن يدعم هذا البحث الجامعات في مصر لزيادة وعي الطلاب بأهمية ريادة الأعمال وتزويدهم بتعليم ريادة الأعمال. ويساهم في الأدب من خلال اعتباره واحداً من الدراسات التجريبية المتنامية التي ستتناول دور تعليم ريادة الأعمال في الجامعات الحكومية والخاصة على حد سواء في مصر. وستدعم نتائج البحث الباحثين والممارسين في اكتساب رؤى حول التأثير المستقبلي لتعليم ريادة الأعمال في مصر.

الكلمات الرئيسية: تعليم ريادة الأعمال، نية الطلاب، مناخ ريادة الأعمال في الجامعة، نظرية السلوك المخطط.