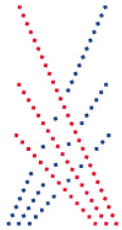

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Examining the Entrepreneurial Intentions of University Students in Egypt

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Abstract

The aim of this paper is to investigate the entrepreneurial intention of university students in Egypt within the context of the Theory of Planned Behaviour (TPB). It examines the effect of personal attitudes, subjective norms, and perceived behavioural control on the intention to become an entrepreneur. Moreover, it integrates the role of entrepreneurial education, economic and political conditions in explaining students' intentions to become entrepreneurs. A questionnaire was distributed to a sample of 362 undergraduate students across different faculties. Several hypotheses have been developed and tested using correlation, reliability, and multiple regression analysis. The results illustrate that personal attitudes and subjective norms proved to be important determinants to one's entrepreneurial intentions. These results are of interest for policy makers and regulators in promoting entrepreneurial skills among youth. The study has implications for research and entrepreneurial practice as it contributes to the field of entrepreneurial intentions and education.

Keywords: Entrepreneurial intention, Theory of planned behaviour, attitudes, Education, University Students, Egypt.

Introduction

Entrepreneurship has emerged as an increasingly prominent characteristic of developed nations. It is regarded as one of the major factors that contributes towards economic growth and development of developed and developing countries. Indeed, many countries have focused their economic and social growth on entrepreneurship as it is regarded as a source of employment, innovation, and productivity (Urbano & Aparicio, 2015). Many empirical studies found association between economic growth and development and the rate of entrepreneurial activity within countries (Koellinger & Thurik, 2012). As a result, entrepreneurship became central to policymakers, economist, academics, and nowadays students. In particular, the positive effect of young entrepreneurship impacts the economic and political aspects of the country (Fatoki, 2000). Entrepreneurs can change the way we live and work while revolutionising and improving our standard of living. Graduate entrepreneurs are seen worldwide to be a vital source of competitiveness and a contributor towards a future knowledge-based economy (Matlay, 2011; European Commission, 2006, 2008). In addition, graduates are more likely to be involved with early-stage entrepreneurial activity and start their own business (Kwong *et al*., 2007). Thus, it is important to understand what drive students to start their own businesses.

In Egypt, unemployment and poverty were the main drivers that stimulated the protests in January 2011, the so-called Arab Spring uprising. The country was suffering on both, the economic and social levels and although the youth were calling for greater opportunities, the unemployment data showed the inability of the economic growth to respond to their needs. The Central Agency for Public Mobilization and Statistics (CAPMAS) indicated that 79.5% of total unemployment were found within the age group 15-29 years old. Furthermore, the majority of the unemployed, 92.9%,

were intermediate and university degree holders (CAPMAS, 2011). Thus, the development of entrepreneurship, in both concept and activity, is becoming more important as job opportunities are limited in the Egyptian market which creates a burden on the government. Given the great influence that entrepreneurship has on growth, the Egyptian government has taken several initiatives to promote entrepreneurship. Rowad 2030, "Fekretak Sherketak" (your idea is your venture), Technology Innovation and Entrepreneurship Centre (TIEC) accelerator and incubator programmes are examples of such initiatives that enable young entrepreneurs and support their role in economic development. Last year, the Ministry of Investment and International Cooperation established "Egypt", a company for entrepreneurship and investment with a capital of EGP 451 million, investing in small firms, start-ups, incubators, and venture capitals to support economic growth in Egypt (EgyInnov, 2019). The government has signed several fund agreements to support small and medium-sized firms (SMEs). Recently, the European Investment Bank (EIB) and Bank of Alexandria (Alexbank) signed a financing agreement worth €20 million to support SMEs (Egypt Today, 2018). The importance of entrepreneurship is also reflected by the growth of the Egyptian ecosystem awareness and support. Rise up summit, which brings the Middle East's biggest start- up event every year, is an example of Egypt's success, winning the "Ecosystem Player of the Year" award at the TechWadi Annual Forum (Entrepreneurship Ecosystem Growing in Egypt: Report, 2017). Overall, the Egyptian entrepreneurship positive trend continues according to the Global Entrepreneurship Monitor (2018). The growth of individuals starting new businesses are increasing and their intention to start is high. According to the GEM (2018), 75.9% of Egyptians perceive entrepreneurship as a good career choice, ranking 7th among GEM countries. On the other hand, 43.5% of Egyptian non-entrepreneurs perceived opportunity to start a new business, ranking 29th. Moreover, about 55.5% of Egyptian non-entrepreneurs were found interested in starting new business indicating high intentions.

While much progress has been made in Egypt's entrepreneurial ecosystem over the past few years, it remains at the infancy stage. Thus, there is a vital need for specifically targeted campaigns that support young entrepreneurs, business education, and institutions to improve entrepreneurship on broader terms. As entrepreneurship and SMEs continue to be a key source of economic growth and innovation, there is a need to study the students' intention to become entrepreneurs. People do not engage in entrepreneurship by accident; they do it intentionally as a result of choice (Krueger, 2007). The experience and motives of students at university can influence their views of entrepreneurship and their inclination to start business (Gibb, 1993). Thus, in order to formulate effective policies to curb graduate unemployment, there is a need to study the factors affecting students' intention to become entrepreneurs. Accordingly, entrepreneurial intentions serve as the strongest predictor of entrepreneurial activity in contemporary entrepreneurship research (Krueger *et al*., 2000). It is defined, according to Bird (1988), as the conscious state of mind that directs personal attention, experience, and behaviour toward planned entrepreneurial behaviour. Entrepreneurial intentions are found to be influenced by internal factors such as personality traits, motivations, previous experiences, education, and attitudes (Littunen, 2000), external factors such as the environment (Fayolle, 2008) and contextual factors (Brinckmann *et al*. 2010). Using the Theory of Planned Behaviour (TPB) as a basis, many studies examined the entrepreneurial intention in different countries (Ana Montes-Merino, 2017; Fernández-Pérez, 2017). Generally, studies found mixed results with respect to the effect of TPB on entrepreneurial intention. While some studies found that the lack of labour experience and inability to sustain entrepreneurial decisions negatively affect entrepreneurial intention, other studies claim that flexibility, technological skills and innovative students positively affect young students' intention to start business (Kautonen *et al*., 2011; Krueger, 2000; Black & Smith, 2004). On the other hand, education, political and economic factors are found

to influence the choice of entrepreneurship (Noorkartina *et al*., 2014). The political and economic pressures of the country were found to have a relationship between the institutional environment and entrepreneurship development (Baumol, 2005). Moreover, entrepreneurial educational programmes were found to foster creative thinking, skills and team working thus, students' intention to become entrepreneurs. It is claimed that the entrepreneurship education system begins the "pipeline […] [that then] runs through research to business" (Organization for Economic Co-operation and Development, 2003, 2009).

Due to the high importance of entrepreneurship education, the study addresses the reoccurring question of whether education catapults entrepreneurs' effort into successful ventures or not. Mixed results were found regarding the role of education and entrepreneurship. While Gorman *et al*. (1997) found that teaching entrepreneurship at lower grades suppresses students, more current studies highlighted the importance of education in motivating students to become entrepreneurs (Roudaki, 2009; Fayolle *et al*., 2006). Knowing the importance of education to the entrepreneurial intention, the study investigates education as a critical facilitating factors for students to start their new venture.

This paper adopts Ajzen's Theory of Planned Behaviour (TPB) to study the entrepreneurial intention of students within the Egyptian context, as it is considered to be the most commonly used theory to capture entrepreneurial intention, actions, and motives. In addition, the study will integrate the role of entrepreneurial education, political and economic conditions in shaping the student's decision to start a business. Understanding these factors will assist policymakers and academic institutions to develop strategies encouraging entrepreneurship and moving towards "Entrepreneurial society". As a result, this study proposes the following questions:

RQ1: What influence do the TPB constructs namely (attitude towards behaviour, social norms and perceived behavioural control) have on the entrepreneurial intentions among Egyptian university students?
RQ2: Does entrepreneurship education and content affect the entrepreneurial intentions among Egyptian university students?
RQ3: Does perceived political & economic conditions influence Egyptian university students' entrepreneurial intentions?

To answer these questions, the study investigates the effect of the TPB components (attitude towards behaviour, subjective norms, perceived behavioural control), entrepreneurial education, political and economic condition on students' intention to become entrepreneurs in a new context, Egypt. These research questions are examined in a field study with a sample of 362 students in one of the private universities in Egypt.

The structure of this paper is as follows. The next section briefly explores the entrepreneurship intention literature, the Theory of Planned Behaviour (TPB) components, and the proposed hypotheses. The subsequent section discusses the methodology used in the study while, the third section analyses the data and present the findings. Finally, the last section provides the discussion, limitation, recommendations, and main conclusions.

Literature Review

The determinants of entrepreneurship have received a great attention from both academics and policy makers. There are different factors affecting entrepreneurship which were explored in the work of Wagner (2006), Davidsson (2006), and Parker (2004). Some scholars highlighted the importance of personality characteristics in shaping individuals intention to become entrepreneur

such as tolerance for ambiguity, risk-taking, internal locus of control, independence, persistence, and innovativeness (Bonnett & Furnham, 1991). Others indicated the importance of demographical, cultural, technological, social, political, and economical factors in shaping the individual's decision to start their business.

The approaches of these studies closely overlap with entrepreneurship literature however, more studies are needed focusing on the role of the theory of planned behaviour on the entrepreneurial intention of university students. The Theory of Planned Behaviour (TPB) has attracted many scholars to investigate its impact on entrepreneurial intention (Solesvik *et al*., 2012; Souitaris *et al*., 2007) yet the findings are inclusive.

The Theory of Planned Behaviour (TPB)

The traditional approach in studying the entrepreneurial intention predicted that the individuals' personality and situational conditions were the main motives to become an entrepreneur. However, Krueger *et al*. (2000) have criticised the traditional approach due to its conceptual and methodological flaw in addition to its inability to explain the entrepreneurial phenomenon. It was argued that the intention models are superior as entrepreneurs are affected by other factors such as their personality abilities, social environment and other motivational factors. As a result Krueger *et al*. (2000) suggest that in order to study the entrepreneurial activity, it requires a planned behaviour which is preceded by attitudes and intentions of individuals. These intentions are affected by the individual's perception of being and entrepreneur and the social/organizational culture.

Two models were proposed, which are largely similar to one another in understanding entrepreneur's behaviour, the Shapero Entrepreneurial Event (SEE) and the Theory of Planned Behaviour (TPB). The SEE was proposed by Shapero & Sokol (1982) which is specific for entrepreneurship analysis. The entrepreneurial event suggests that the interaction among contextual factors affects one's perception in starting their business. There are two kinds of perceptions: the perceived desirability, which refers to "the degree to which a person feels an attraction towards a given behaviour (to become an entrepreneur)" (Liñán & Chen, 2006, p.4). Similarly, the perceived feasibility, which refers to the "degree to which people consider themselves personally able to carry out that behaviour" (Liñán & Chen, 2006, p.4). Likewise, but more detailed, is the "planned behaviour" psychological model developed by Ajzen (1991). The TPB was introduced by Ajzen (1985), a highly structured theory of "planned behaviour", which is used to analyse human behaviour. It states that individuals engage in an activity, becoming entrepreneur, as a deliberate action which is reflected on their intention to this behaviour (Ajzen, 1991). According to Ajzen (1991), the interpretation of a behaviour is the set of the attitude towards it (i.e., behavioural beliefs or perceived desirability), subjective norms (i.e., normative beliefs or perceived feasibility), and perceived behavioural control (i.e., control beliefs or self-efficacy). It was claimed that the intentions are the most important predictor of most planned entrepreneurial behaviour (Krueger *et al*., 2002; Kolvereid & Isaksen, 2006). Thus, the theoretical framework of this study is built on Ajzen's (2002) theory of planned behaviour as becoming an entrepreneur is considered as a planned behaviour.

Attitude Towards Behaviour (*ATB)*

Personal attitudes toward entrepreneurship is defined as "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question" (Ajzen, 2002, p.5). Prior to forming intention, people seem to evaluate positively or negatively a set of behavioural beliefs linking to various attributes. In this way, Souitaris *et al.* (2007) referred to attitude towards entrepreneurship behaviour as the difference between the desire of individual to become self-employed and the desire to be employed. A favourable attitude toward behaviour, in this case,

starting a new venture, is developed when the people perceive the benefits. However, if individuals failed to perceive the advantages of such attitude, they will not be motivated to engage in (Almobaireek & Manolova, 2012). In this regards, the role of attitude and perception in creating entrepreneurial culture is very important as highlighted in Schøtt *et al*. (2015) report.

Additionally, a reciprocal relationship between attitudes and behaviours was found since attitudes contribute to shaping further behaviour once this behaviour is formulated (Ajzen, 1991; Kaplan, 1996). As a result, attitude of entrepreneurship is a mind-set that is affected by the external and internal factors supported by a cognitive ability in starting a new venture (Kurniawan, Murwani & Indrawati, 2018). Thus, the following hypothesis is proposed:

H1: Entrepreneurial attitude has a significant impact on entrepreneurial intention among Egyptian university students.

Subjective Norms (SN)

Social norm is defined as "the perceived social pressure to perform the action of being monitored" (Solesvik *et al.,* 2012, p.448). People are influenced in their lives to engage in a particular behaviour or not as a result of surrounding pressures. These pressures have two components which can become a barrier or a starting point for establishing a business. The first component is the normative beliefs, which refers to the likelihood that others can influence the outcome behaviour of the person. It depends on the aid from other important people such as family members, friends or close people (Solesvik *et al.*, 2012). The second component is the motivation to comply, which refers to one's willingness to conform to such norms (Ajzen, 1991). Moreover, studies found that early childhood, exposed to difficult and harsh conditions, projected a positive impact on individual's autonomy and attitude toward self-employment (Drennan *et al*., 2005). However, literature has shown controversial findings regarding the relationship between the social norm and the entrepreneurial intention. Some studies supported the significant effect of subjective norms on one's intention (Kautonen *et al*., 2013; Siu & Lo, 2011; Moriano *et al*., 2011). Also, van Gelderen *et al*. (2008) found out that family members and friends had a positive impact on intention. On the other hand, Armitage & Conner (2001) found out that social norms contribute more weakly on intention depending on the personality characteristics and propensity to conform. Moreover, Shook & Bratianu (2010) and do Paço *et al*. (2011) found the same weak impact and asserted that social norm is not positively related to entrepreneurial intention. Similarly, Almobaireek & Manolova (2012), Sommer & Haug (2011), and Fini *et al.*, (2009) concluded that social norms is insignificant in influencing entrepreneurial intention. Based on these debates, further investigation is required to study the impact of social norms on entrepreneurial intention. Hence, the following hypothesis is developed:

H2: Subjective norms has a significant impact on entrepreneurial intention among Egyptian university students.

Perceived Behavioural Control (PBC)

It is defined as "the perception of the easiness or difficulty in the fulfilment of the behaviour of interest" (Liñán & Chen, 2006, p.4) and many scholars referred to it as "self-efficacy". It may be influenced by one's previous experience or their surroundings. In this case, it highlights to what extent individuals control belief about entrepreneurship (Solesvik *et al*., 2012). People would prefer to be an entrepreneur if they believe that the rewards of entrepreneurship outweigh the benefits of work. In support to this, a study done by Almobaireek & Manolova, (2012) and Kautonen *et al*.

(2013) found that perceived behavioural control affected entrepreneurial intention. Similarly, Sommer & Haug (2011), Shook & Bratianu (2010), and van Gelderen *et al.* (2008) concluded that perceived behavioural control was the strongest predictor of entrepreneurial intention. Based on this, the following hypothesis is proposed:

H3: Perceived behavioural control has a significant impact on entrepreneurial intention among Egyptian university students.

Entrepreneurial Intention (EI)

Entrepreneurship is defined as a risky behaviour in an attempt to seek new opportunities and achieve self-control (Ozaralli & Rivenburgh, 2016). On the other hand, entrepreneurial intention is defined as the intention to start up and engage in entrepreneurial behaviours and carrying out entrepreneurial activities. Such behaviour is affected by several factors such as wants, needs, beliefs, and value (Liñán & Chen, 2009). Becoming an entrepreneur is an output of deliberate and conscious decision (Wilson *et al.,* 2007); the stronger the intention, the more likely an individual will perform a particular behaviour. Thus, there is positive relationship between the likelihood of behaviour to happen and the intention to engage in that behaviour (Ajzen, 1991; Souitaris *et al.,* 2007). It was argued that if intention increased, the innovation will increase leading to more contribution to entrepreneurship activities (Packham *et al.,* 2010). Intentions are considered the best single determinant of one's behaviour (Krueger, 2008) and was found to be predicted by individual's attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). Since measuring actual behaviour is difficult and entrepreneurial behaviour is intentional, intentions were used as a measurement in research (Krueger & Carsrud, 1993). However, literature found that entrepreneurial intention is a function of contextual factors.

Contextual factors are argued to impact entrepreneurial intention thus, should not be ignored when studying entrepreneurial activities (Türker & Selçuk, 2009). The literature about entrepreneurship suggests that entrepreneurial intention is influenced by factors beyond individuals since they are the result of place and time where they live (Dornelas, 2005). A study done on MIT students, found that the contextual factors and personal characteristics affected their intention to become entrepreneurs (Lüthje & Franke, 2003). Furthermore, Türker & Selçuk (2009) argued that the contextual factors, such as structural and educational support, impact individual's perception to start a business. The importance of institutional environment and supportive culture as a structural support encourages entrepreneurial development (GEM, 2012).

Educational Support: The past 15 years has been undergoing an extraordinary proliferation of entrepreneurship education programmes and courses (Solomon, 2008). Education and training are regarded as the most important factors affecting the development of individuals. It is designed at stimulating entrepreneurship, which is defined as independent small business ownership. Entrepreneurship education is considered as a useful source of entrepreneurship knowledge whereby individuals can increase their ability to analyse business environment; develop skills and talent; increase their management and negotiation skills; acquire skills in the use of techniques; develop attitudes towards change; and to encourage new start-ups (Garavan & O'Cinneide, 1994). Entrepreneurship education programmes have stimulated student's interest to become entrepreneurs (Fayolle *et al*., 2006) by affecting their attitudes and values, their social status and improving their abilities (Wu & Wu, 2008; Turnbull *et al*., 2001). Moreover, the entrepreneurial programmes are found to be effective in raising awareness of the nature and importance of entrepreneurship (Anderson & Jack, 2001; Hill & Cinneide, 2001). Students are taught the knowledge, attitudes, tools,

opportunities identification, market analysis, technology trends, innovation, organizational change, product design, and prototyping (Tidd & Bessant, 2009). Today, university education influence career selection of students (Keat *et al*., 2011; Turker & Selcuk, 2009) and promotes entrepreneurial mind-sets among students. It prepares students for career success while increasing their capacity for future learning (Mumtaz *et al*., 2012). Thus, university education plays strong role in promoting entrepreneurship as a career choice by providing necessary exposure through theoretical and practical knowledge about entrepreneurship (Rauch & Frese, 2000). A study done on two European universities found that students' inclination to become self-employed increased after implementing an entrepreneurship education programme (Souitaris *et al*., 2007). Similarly, a study conducted in Turkey found a positive impact of university education on student's entrepreneurial intention (Türker & Selçuk, 2009). However, the literature regarding this relationship is polarize as other studies found a negative relationship. It was argued that by teaching students risk averse and analytical skills, it demotivates them from starting their own business (Laukkanen, 2002). Moreover, it was claimed that what students are taught only prepare them for corporate jobs rather than starting their own venture; as it suppresses their creativity and inspiration.

In parallel with developed countries, there is increasing interest to entrepreneurship education in most of the universities in Egypt. However, the existing education is considered to be insufficient to foster entrepreneurship. Despite the large number of programmes and trainings, Egypt has a long way to go. According to the Global Entrepreneurship Monitor (2018), Egypt was ranked 47/54 in entrepreneurial education at school stage, 51/54 in entrepreneurial education at post-school age, and 36/54 in government entrepreneurship programmes. Thus, there is a need for a comprehensive policy framework to boost entrepreneurship education across universities and schools. In respond to this, the first step in addressing this process is to understand the intention of university students to become entrepreneurs. Based on the above discussion, the following hypothesis is developed.

H4: Entrepreneurial curriculum and content has a significant effect on entrepreneurial intention among Egyptian university students.

Structural Support: Entrepreneurs were found to be influenced by the economic and political environment of the country (Veciana, Aponte & Urbano, 2002). It was argued that the socio-political environment plays a powerful tool in hindering or motivating entrepreneurship development within the country (Aldrich & Wiedenmayer, 1993), and shaping individuals to become entrepreneurs. Scholars claimed that the environment, where individuals' interact, influence their values, attitudes, beliefs and behaviour (Burch, 1986; Birch, 1978; Diaz-Casero *et al.,* 2012). High inflation, economic instability, unemployment rates, and market fluctuations are examples of economic factors that undermine entrepreneurial activities. On the other hand, corruption, bureaucracy, taxes, and lack of corporation laws were found to discourage potential entrepreneurs from starting their business. Therefore, an environment which is characterised by supportive political and economic conditions will motivate individuals' to become entrepreneurs. Hence, the following hypotheses are developed:

H5: Political conditions significantly affect entrepreneurial intention among Egyptian university students.

H6: Economic conditions significantly affect entrepreneurial intention among Egyptian university students.

Based on the developed hypotheses, this study will explore the antecedents of entrepreneurial intention by using TPB model and adding to this theoretical framework the effect of entrepreneurial curriculum and content, political, and economic conditions.

Methodology

The main aim of this study is to examine the entrepreneurial intention of university students in Egypt applying the Theory of Planned Behaviour (TPB). In addition to that, the importance of studying a sample of university students is that it includes both tomorrow's entrepreneurs and those with no intention to get involved in entrepreneurial activities. Furthermore, the study will examine the influence of entrepreneurial curriculum and content as well as the political and economic conditions within the country on entrepreneurial intention. The study examined graduates from a private university in Egypt based on convenience and accessibility. Efforts were made to collect data from all students across all faculties. As a result, the sample of 362 was obtained from undergraduate students covering business/management, engineering, and pharmacy faculties during the academic year 2017/2018. A pilot study was conducted on ten students to make sure that they do understand the wording of the questionnaire. The students who participated in the questionnaire's pre-test phase were not included in the final sample. The questionnaire was clear and no amendments were made. It was divided into two parts, the first part was related to personal data (socio-demographic variables, such as age, gender, level of educational, area of study, parents experience, and previous work experience), while the second part included questions concerning attitude (ATB), subjective norm (SN), perceived behavioural control (PBC), intentions (EI), entrepreneurial education and content, political and economic conditions.

Instruments and Measures

This study adopted the quantitative research approach whereby a self-administered survey was filled out both online and personally. The survey was distributed using the university online system and was administered in classrooms before classes. The study applied a convenience (non-random) sampling method to select and recruit research participants. All individuals who were approached were assured that their names will not be disclosed and confidentiality will be strictly maintained. There was no obligation for the subjects to answer the survey online or in person. The total number of questionnaire collected reached 379 however, 17 questionnaire were non-usable due to missing important information. Thus, the final valid count reached 183 prints and 179 electronic surveys, totalling 362 respondents. The survey took 15 min to complete and data were collected between March and May 2018. It was constructed in English and was voluntary and anonymous.

Entrepreneurship intention is defined as the behavioural intention to become an entrepreneur (Bird, 1988) and is derived from the theory of reasoned action (Fishbein & Ajzen, 1975). It was measured using 7- items reflecting one's willingness to do anything to start a business. The items were borrowed and validated from Davidsson (1995), Liñán & Chen (2006) and Solesvik *et al*. (2012) work. Students were asked to rate the extent to which they agree with each item in this scale in a 5-point Likert-type scale, where 1= "strongly disagree" and 5= "strongly agree". A sample item is "I am ready to do anything to become an entrepreneur".

On the other hand, the survey included the three components of TPB (attitude towards behaviour, subjective norm, and perceived behavioural control). Attitude towards behaviour is captured using Liñán and Chen's 5-items scale. It examines the students' attitude towards becoming entrepreneurs. A sample item is "being an entrepreneur implies more advantages than disadvantages to me". Students were asked to rate the extent to which they agree with each item in this scale in a 5-point Likert-type scale, where 1= "strongly disagree" and 5= "strongly agree". Subjective norms, which reflects the importance of others' opinion such as (member of the family, friends, etc.) in shaping students' opinion to become an entrepreneur, is measured using 3-item scale borrowed from Solesvik *et al.* (2012), Souitaris *et al*. (2007), and Liñán & Chen (2006) work. A sample item is "my closet family members think that I should pursue a career as an entrepreneur". Students had to report

their level of agreement regarding the extent to which others affect their entrepreneurial intention in a 5-point Likert-type scale, where 1= "strongly disagree" and 5= "strongly agree".

Perceived behaviour control, which reflects the student's perceived easiness to become entrepreneurs and control their business, is measured using 5-item scale adopted from Solesvik *et al.* (2012), Souitaris *et al.* (2007), and Liñán & Chen (2006). A sample items are "If I wanted to, I could easily become an entrepreneur" and "As an entrepreneur I would have sufficient control over my business". Students were asked to rate the extent to which they agree with each item in a 5-point Likert-type scale, where 1= "strongly disagree" and 5= "strongly agree".

Two different questions were added to capture the effect of economic and political conditions on student's intention to start their business. The questions were measured using a dichotomous scale (yes/ no) whereby students had to identify whether they find the economic/political conditions in Egypt now better for starting their business or not. Sample items include: " I think the economic conditions in Egypt now is better for starting a new business" and "I think the political conditions in Egypt now is better for starting a new business".

Entrepreneurial curriculum and content was measured using 13-item scale adopted from Keat *et al.* (2011). A sample items are entrepreneurial curriculum and content "develop entrepreneurial knowledge and skills" and "raise interest towards entrepreneurship". Students using a 5-point Likert-type scale were asked to rate the extent to which they think their entrepreneurial curriculum and content affected their intention to start their business.

Analysis and Results

The data was analysed with SPSS 25. In the first step, some descriptive results of the university students are presented. In the second step, correlation analyses will be performed and finally, the effect of the six independent variables on entrepreneurial intentions will be identified. Table 1 reports the demographic characteristics of the respondents. The results indicate that 44.2% of the respondents were males and 55.8% females. The majority of respondents (62.4%) were between the ages of 18-21. Out of the 362 respondents, 65.5% were management/business majors, 24% engineering and 10.5% science faculties. Moreover, 37.8% of the respondents were from year 4 while 17.4% were from year 1.

Table 1- Demographic Characteristics of Respondents (N=362)

		Frequency	%
Age	Below 18	3	0.8
	18-21	226	62.4
	22-25	123	34.0
	26-29	10	2.8
Gender	Male	160	44.2
	Female	202	55.8
Study Major	Business/ Management	237	65.5
	Engineering	87	24.0
	Science (Medical/Dentistry/Pharmacy)		
Study Year	Year 1	63	17.4
	Year 2	38	10.5
	Year 3	96	26.5
	Year 4	137	37.8
	Year 5	28	7.7

Table 2 presents the descriptive statistics of the summated scales. The scales used to measure the relevant phenomena were Likert scales (minimum 1, maximum 5), where 3 is the indifference value. Values below 3 (the median point of the scale) represent somewhat negative values in the scale, and values above 3 are positive. It should be noticed that social norms and PBC have the lowest means of the scales, but also social norms has the larger standard deviations, meaning that the group is very heterogeneous.

Table 2- Descriptive of Summated Scales

Variables	Min	Max	Mean	SD
Entrepreneurial Intention	1	5	3.702	.856
Attitude towards behaviour	1	5	3.857	.812
Social norm	1	5	3.326	.929
Perceived behavioural control	1	5	3.315	.651
Entrepreneurial curriculum and content	1	5	3.87	.661

Reliability

The internal consistency of the scales were assessed through computing Cronbach's alpha. It indicates how well the items are positively correlated to one another (Sekaran, 2003). The closer Cronbach alpha is to 1, means that the internal consistency is high. Table 3 shows that the reliability analysis for entrepreneurial intention is 0.9 which is considered to be excellent internal consistency. The attitude towards behaviour and entrepreneurial curriculum and content scales showed also an excellent internal consistency 0.91 and 0.92, respectively. Moreover, the Cronbach's Alpha for social norms is 0.87 which is considered to be good internal consistency. However, perceived behavioural control showed a questionable result of 0.66.

Table 3- Reliability Analysis and Measures

Variables	Cronbach's Alpha	No. of items
Entrepreneurial Intention	0.901	7
Attitude towards behaviour	0.909	6
Social norm	0.865	3
Perceived behavioural control	0.656	5
Entrepreneurial curriculum and content	0.924	13

Entrepreneurial Intention (EI)

Table 4 shows the mean values and frequency values of the items used in the scale for measuring entrepreneurial intention among university students. The percentage of respondents that answered "SA" = strongly agree and "A"= agree, reveal that university students hold a moderate-high level of entrepreneurial intention.

Table 4- Entrepreneurial Intention

Items	Mean	%SA and A
I am ready to do anything to be an entrepreneur	3.6	53.0
My professional goal is to become an entrepreneur	3.6	55.2
I will make every effort to start and run my own firm	3.9	66.0
I am determined to create a business venture in the future	3.9	71.0
I have very seriously thought about starting a firm	3.8	62.1
I intend to start a firm within five years of graduation	3.4	44.2
I have thought of entrepreneurship as a career option	3.8	65.8

Correlation Analysis

A correlation analysis was run with all seven variables. The results showed that entrepreneurial intention is positively and significantly correlated with the three components of TPB. The correlation coefficients ranged from 0.293 to 0.772 and are shown in Table 5, with attitude towards behaviour having the highest positive correlation of 0.772. In addition to that, the three variables of TPB were found to be significantly correlated with each other. Furthermore, the variable entrepreneurial curriculum and content was proved to have a positive and statistically significant correlation with entrepreneurial intention ($r=0.305$, $p<0.01$). As for the political and economic conditions, the results showed a positive and significant correlation with entrepreneurial intention.

Table 5- Correlation Matrix

Pearson's Correlation	1	2	3	4	5	6	7
1. Entrepreneurial Intention	1						
2. Attitude towards behaviour	.772**	1					
3. Social norm	.539**	.535**	1				
4. Perceived behavioural control	.293**	.282*	.406**	1			
5. Entrepreneurial curriculum & content	.305**	.386**	.232**	.161*	1		
6. Political Conditions	.128*	.148**	.132*	.106*	.083	1	
7. Economic Conditions	.195**	.154**	.151**	.155**	.010	.378**	1

Note: **Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

Multiple linear regression analysis was conducted to test hypotheses H1, H2, H3, H4, H5, and H6. It measures the extent to which the independent constructs explain the variance in the dependent variable. The impact of the three components of TPB, entrepreneurial curriculum and content, political and economic conditions on intentions to become entrepreneurs were identified using multiple linear regression analysis as shown in Table 6. The average variance inflation factor (VIF) is below 10, none of the variables exhibits a variance inflation factor larger than 1.84; thus, multicollinearity does not appear to be a problem. Moreover, Durbin-Watson statistic (DW) from the regression was between 1.887 and 2.071 suggesting that the study includes the main explanatory variables. The study developed six models as shown in Table 6, to examine the relative importance of each set of variables to the explanatory power of the equation when introduced. The vector entrepreneurial intention include age, gender, study area/major, year of study, business experience, and parents experience as control variables.

The results in Model (1) produced $R^2= 0.062$, $F (4.969)$, $p<0.001$ which means that the model was successful in predicting only 6.2% of the variance in the dependent variable. Moreover the F-test, which tests for the null hypotheses that there is no linear relationship between variables, is highly significant across all six models. Therefore, it can be assumed that there is a linear relationship between the variables in the six models. Model (1) highlights the positive significant effect of age, years of study, and experience on entrepreneurial intention. A positive and significant relationship between age and entrepreneurial intention was found due to the development of students' mind-sets and their awareness of several business aspects. Furthermore, experience was found to impact intention positively, since working in a start-up or business fosters student's abilities and choice to become entrepreneurs. However, the years of study was found to have a negative significant effect

on entrepreneurial intention. The result is in line with Laukkanen (2002), who suggested that the education supress student's capabilities to be creative and take risks. As students accumulate knowledge and education throughout the years, their intention to start their business decreases.

In Model (2), the TPB components (attitude towards behaviour, social norms, and perceived behavioural control) were included. The results produced R^2= 0.669, F (244.543), p<0.001. This means that the TPB was successful in predicting 66.9 % of the variance in entrepreneurial intention. It was found that attitude towards behaviour (β=0.702, p<0.001), subjective norms (β=1.58, p<0.001), and perceived behavioural control (β=0.087, p<0.001). The results is in line with Sommer & Haug (2011), Shook & Bratianu (22010), and van Gelderen *et al.* (2008) works suggesting the important role that behaviour plays in shaping one's intention to start a business. Moreover, the social norm was weak as suggested by Armitage & Conner (2001). Furthermore, the results found out that perceived behavioural control contribute more weakly on intention.

Model (3) adds the control variables to the TPB components resulting in no change in the R^2 while F-value = 81.537, p<0.001. It could be found that when adding both Models (1) and (2), the age, years of study, and experience changed from being significant to non-significant. Moreover, while perceived behavioural control was significant in Model (2), after adding the control variables it became non-significant. Thus, more work is needed to examine the interactions between variables to provide a better understanding on their impact. This might suggest that the social norms and the student's attitude were the main factors shaping their intention.

Model (4), presents the impact of education on entrepreneurial intention producing R^2= 0.095, F(20.569), p<0.001. Thus the model only explained 9.5% of variation in the dependent variable. In Model (5), the structural factors (economic and political conditions) were added producing R^2= 0.030, F (6.602), p<0.001. It could be found that only the economic conditions significantly impacted the intention however, the model only explained 3% of the variance in the intention. Finally Model (6), compiled all variables to examine the impact of the of the independent variables understudy on the entrepreneurial intention of students. The model produced R^2= 0.673, F (32.785), p<0.001 showing a slight change in R^2 compared to Model (1). Moreover, when adding all models, it could be found that the significance of education in Model (4) and economic conditions from Model (5) became insignificant in Model (6). On the other hand, the impact of attribute towards behaviour and social norms remained significant highlighting the important role that both variables play in shaping the entrepreneurial intention.

In summary, the study developed six hypotheses to examine their impact on entrepreneurial intention among students. It could be found that in Model (2), when testing for the three components of TPB, the results supported H1, H2, and H3. Furthermore, Model (4) supported H4 and Model (5) only supported H6. However, In Model (6), which integrated all five models, supported only H1 and H2, indicating that entrepreneurial attitude and subjective norms have a significant role in developing university student's intention to become entrepreneurs and start their own business which is supported by the theory of planned behaviour. It could be indicated that the education curriculum and content did not have a significant impact on students' intention towards entrepreneurship, in accordance with the results found in Karimi *et al.,* (2016). The education did not add to the explanation power of Model (6) indicating further investigation of interaction variables.

Table 6- Regression Analysis of the Entrepreneurial Intention Model

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age	0.195*		0.050			0.19
Gender	0.156		0.029			0.118
Study area	0.11		0.005			0.023
Years of Study	-0.127**		-0.030			-0.063
Experience	0.303**		0.036			-0.045
Parents Exp.	0.086		0.041			0.036
ATB		0.702***	0.690***			0.609***
SN		0.158***	0.161***			0.191***
PBC		0.087*	0.067			0.11
Education				0.346***		0.058
Economic					0.257**	0.005
Political					0.104	-0.021
R-squared	0.062	0.669	0.669	0.095	0.030	0.673
F-value	4.969***	244.543***	81.537***	20.569***	6.602**	32.785***
D-W	1.953	2.026	2.048	2.071	1.905	1.887

Dependent Variable: Entrepreneurial Intention. Standardized coefficients: * p<0.05, ** p<0.01, *** p<0.001

Discussion

Entrepreneurship and start-ups have become a focal point in developed and developing countries. Despite growing interest in international comparative management, there have been lack of studies addressing cross-cultural context, especially Egypt. Realising the importance of producing and encouraging young entrepreneurs, this study examined the effect of the three components of TPB, entrepreneurship curriculum and content in addition to the political and economic conditions perceived by university students in Egypt on their intention to become entrepreneurs.

The first contribution of this study is that two components of TPB (attitude towards behaviour and subjective norms) were found to be significant in predicting the entrepreneurial intention. Similar findings were found by Ajzen (1991), Kolvereid (1996), and Tkachev & Kolvereid (1999) while Tsordia & Papadimitriou (2015) found only subjective norms insignificant. This means that the students' desire to become self-employed shapes their intention to start their business. In addition to that, the opinion of significant family member, close friends, colleague affect their intention to start their business. However, the presented result failed to confirm the role of perceived behavioural control in the formation of intentions in the case of the university students in Egypt. This indicates that university students' perception of their ability to become entrepreneurs exerts less effect on their intention to become entrepreneurs. This can be explained by the entrepreneurship culture in Egypt which is not well integrated. Students need to have more- self-confidence and get exposed to successful Egyptian entrepreneurs to learn from them. They need to engage in real-life activities which will eventually shape their behaviour to become an entrepreneur.

Interestingly, the results found no support for the role of entrepreneurial curriculum and content on the entrepreneurial intention. Similar results were found in previous studies examining the determinants of entrepreneurial intentions (Koellinger *et al*., 2005; Gupta, 1992; Gimeno *et al*., 1997; Saraf, 2015). It was argued that education may improve and develop student's skills but may

not affect the choice of being self-employed. The insignificant findings may be attributed to the educational program introduced to students. The Egyptian culture may affect the student's intention by not exposing them to entrepreneurial activities, which needs to be reformed.

On the other hand, Egyptian university students' low level of entrepreneurial intention can be explained by their unfavourable political and economic conditions in Egypt, especially after the 25th January revolution in 2011. However, youth nowadays are encouraged to start their business due to the unavailability of job opportunities. This might have impacted their intention to start their own business. Furthermore, the political and economic conditions do not have a statistically significant effect on their intention. Students perceive the political and economic conditions in the country improving compared to 2011, thus did not hinder their intention.

Limitation & Recommendation

This study is prone to some limitations that requires further investigation and might affect the generalisation of the results. Firstly, the convenient sample may affect the validity of the results. As a result, there is a need to collect more data from other universities that teach entrepreneurship in their curriculum. Secondly, the sample was Egyptian students therefore, cannot be generalised in other cultural environments. Thirdly, the sample was collected from only one private university thus, cannot be generalised. Fourthly, the study focuses on intentionality which may not turn into action. Another limitation might be the fact that the survey collected was conducted via students' email that were provided by the university, not all students had the opportunity to participate. Furthermore, the use of quantitative approach was unable to uncover in-depth information regarding students' intention to become entrepreneurs.

It could be recommended that universities integrate entrepreneurship programmes within their curriculum which will assist students to start their own business. There is a need for an enterprise policy framework to foster entrepreneurship. They need to develop an enterprise culture whereby individuals will be able to turn their ideas into a successful business. Facilitate access to finance, as it is considered to be one of the main barriers hindering start-ups. Thus, through education, this could be stimulated among students and graduates. In addition to that, there is a need to develop entrepreneurial programmes from primary education to tertiary education.

Conclusion

Entrepreneurial intention of university students are vital for achieving an entrepreneurial society. University students are tomorrow's entrepreneurs thus, it is important to study their intention to formulate strategies to boost their role in the society. Producing entrepreneurs is one of the biggest challenges that Egypt faces therefore, this study was conducted to pave the way for more studies building on the results to investigate more regarding the cultural context. The study aimed at empirically examining the factors affecting entrepreneurship intentions among university students in Egypt, applying the theory of planned behaviour. Moreover, the study investigated the educational role in explaining their intentions. In addition to that, the economic and political conditions were examined in the model to provide a clear understanding of the factors contributing to the entrepreneurial activity. The study found a positive and significant effect of attitude towards behaviour and subject norms on student's entrepreneurial intention supporting H1 and H2. However, the study failed to find a significant effect of perceived behavioural control, entrepreneurial curriculum and content, political and economic conditions on the students' intention to become an entrepreneur thus, H3, H4, H5, and H6 were not supported.

Since entrepreneurial activities are becoming vital to the economic development of the country, there is a need for a clear regulation of entrepreneurship education and training practices within universities. The priority of the entrepreneurship education should be the development of entrepreneurial attitudes, behaviour and skills. It is important to foster entrepreneurship within universities and make students interested in entrepreneurship as a career option.

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