

The Relationship between the University Students' Perception of Entrepreneurship and their Intention to Start-up a Business

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Abstract

This study was designed to investigate the relationship between the Egyptian university student's perception toward entrepreneurship and their intention to start-up their own business after graduation, and to identify the different factors (either endogenous or exogenous ones) that help in performing their perception toward entrepreneurship and therefore affect their intention to start-up a business. The instrument of collecting data for this study was a questionnaire. The questionnaires were distributed among the university students who studying commerce in both public and private universities located in Egypt, through an online link that contains the questionnaire items translated into Arabic among the sample units between the period from May 2021 to October 2021.

The results didn't support the relationship between (gender, and business opportunity) as factors that perform the students' perception toward entrepreneurship and their intention to start-up a business after graduation. On the other hand, the results supported the relationship between (perception of self-efficiency, barriers, and motives) as factors that perform the students' perception toward entrepreneurship and their intention to start-up a business after graduation. Based on these results, the researcher proposed a number of recommendations in order to direct the performance of public and private educational institutions in Egypt towards entrepreneurship, the most important of which is the introduction of new courses on entrepreneurship in Egyptian universities, in order to enhance students' perceptions towards entrepreneurship and thus encourage them to move towards entrepreneurship, providing training courses on entrepreneurship skills for university students, and inviting entrepreneur guest speakers by the universities' training centers to engage in question-and-answer sessions, explain their success stories, and share their experiences. Guest speakers can give real-life examples of how small firms are established and operated, providing students a greater understanding of the "real world" of entrepreneurship obstacles and possibilities that entrepreneurs may face.

ملخص البحث

يتمثل الهدف الرئيسي لهذا البحث في دراسة العلاقة بين العوامل الداخلية (النوع - الكفاءة الذاتية) والعوامل الخارجية (فرص العمل - العوائق - الدوافع) المكونة لإدراك الطلاب لريادة الأعمال ونيّتهم لبدء مشروعاتهم الخاصة بعد التخرج وتتمثل مشكلة الدراسة في اعتياد الشباب في مصر العمل في القطاع الحكومي، ولم تعد تلك الفرصة متاحة بسبب العدد المفرط للموظفين في القطاع الحكومي وعدم استقرار الاقتصاد المصري وبالتالي، فهناك ضرورة لتوجيه الشباب نحو ريادة الأعمال. ولدراسة هذه المشكلة تقترح الدراسة فرض رئيسي لدراسة العلاقة بين العوامل المكونة لإدراك الطلاب لريادة الأعمال ونيّتهم لبدء مشروعاتهم الخاصة بعد التخرج. ويتكون مجتمع البحث من الطلاب الدارسين في كليات التجارة بالجامعات المصرية الحكومية والخاصة. ولأغراض جمع البيانات فقد تم تصميم قائمة استقصاء تم توزيعها على عدد ٢٢٠ مفردة عن طريق الانترنت.

وقد توصلت الدراسة لمجموعة من النتائج أهمها: عدم وجود علاقة معنوية بين (النوع، إدراك فرص العمل) كمكونات لإدراك الطلاب داخل الجامعات الخاصة والحكومية محل الدراسة لريادة الأعمال ونيّتهم لبدء مشروعاتهم الخاصة بعد التخرج. بينما توجد علاقة معنوية طردية بين (إدراك الكفاءة الذاتية، إدراك الدوافع) كمكونات لإدراك الطلاب داخل الجامعات الخاصة والحكومية محل الدراسة لريادة الأعمال ونيّتهم لبدء مشروعاتهم الخاصة بعد التخرج، وتوجد أيضا علاقة معنوية، ولكنها عكسية بين (إدراك العوائق) كمكون لإدراك الطلاب داخل الجامعات الخاصة والحكومية محل الدراسة لريادة الأعمال ونيّتهم لبدء مشروعاتهم الخاصة بعد التخرج. وبناءً على نتائج هذه الدراسة فقد قام الباحث باقتراح عدد من التوصيات وذلك بغرض توجيه أداء المؤسسات التعليمية الحكومية والخاصة في مصر نحو ريادة الأعمال من أهمها تقديم مقررات دراسية جديدة حول ريادة الأعمال في الجامعات المصرية، وذلك لتعزيز تصور الطلاب تجاه ريادة الأعمال وبالتالي تشجيعهم على التوجه نحو ريادة الأعمال، تقديم دورات تدريبية حول مهارات ريادة الأعمال لطلاب الجامعات، دعوة متحدثين من رواد الأعمال كضيوف من قبل مراكز التدريب بالجامعات للمشاركة في جلسات أسئلة وأجوبة، وشرح قصص نجاحهم، ومشاركة تجاربهم، و تقديم أمثلة واقعية عن كيفية إنشاء الشركات الصغيرة وتشغيلها، مما يوفر للطلاب فهماً أكبر للعالم الحقيقي للعقبات والإمكانيات التي قد يواجهها رواد الأعمال.

Introduction

Today, entrepreneurship is seen as a crucial component of a country's economic development (e.g., [Lame and Yusoff, 2013](#); [Raguz and Matic, 2011](#)). It is also viewed as one of the most effective economic development techniques in terms of job and wealth creation, business survival, and technological change, all of which contribute to a country's economic success ([Renjini S, 2016](#)). For a long time, entrepreneurship has been a popular research topic among academics since it has been identified as a tool for economic growth and development, as well as a driver of economic progress, social adjustment, and job creation by solving the problem of unemployment (e.g., [Gurol & Atsan, 2006](#); [Brijlal, 2011](#); [Obembe et al., 2014](#)).

Uncertainty regarding the economy, particularly in developing nations, causes businesses to downsize and reduce the number of available employment opportunities (e.g., [Obembe et al., 2014](#); [Khalid, 2016](#)). As a result, there has been an increase in the unemployment rate. Moreover, the unemployment of graduates has become a national concern in many countries, and the government's main strategies for meeting job demand are to either help the private sector in creating more jobs or to encourage entrepreneurs ([Khalid, 2016](#)).

The unemployment rate can be reduced, and the economy can be developed once young people (students and graduates) understand the value of entrepreneurship and are ready to start their own businesses ([Obembe et al., 2014](#)). We could consider today's students to be tomorrow's possible entrepreneurs if they realized the different benefits of beginning new business ventures (e.g., [Renjini S, 2016](#); [Raguz and Matic, 2011](#)). Their understanding of entrepreneurship is likely to influence their perception of entrepreneurship and their desire to start their own business in the future ([Raguz and Matic, 2011](#)).

There is a growing body of literature arguing that perception plays a significant influence in the decision to start a new venture; if a person has a positive attitude toward entrepreneurship, it is more possible that they will start a new business (e.g., [Khalid, 2016](#); [Kabui and Maalu, 2012](#)).

Theories of Entrepreneurship

There are various definitions of entrepreneur and entrepreneurship drawing from different fields of study, such as business, economics, and psychology, which determined the different dimensions of entrepreneurship (Kabui and Maalu, 2012). One of the earliest definitions was by Adam Smith in 1776 as cited in (Kabui and Maalu, 2012) that saw an entrepreneur as an economic agent who transforms demand to supply. Most definitions have focused on the wealth creation and economic development aspect of entrepreneurship (Tilley and Young 2009). Amit & Zott (2001) study demonstrated that entrepreneurship requires divergent and creative thinking which was described as lateral thinking or “thinking outside the box”.

Entrepreneurship is understood as an activity that generates innovation, employment, and growth over a long period of time; therefore, it is considered by governments to be a solution to social and economic problems (Thornton et al., 2011). Entrepreneurship, as a matter of fact, is a state of mind which referred to the ability and the effectiveness of an individual in recognizing an opportunity and taking advantage of it with the purpose of economic transformation and wealth creation and characterized as an academic field that seeks to understand how opportunities transform into reality and potential goods and services are created (Obembe et al., 2014).

The definitions can be quite simple describing an entrepreneur as “someone who creates a new enterprise” (Low & MacMillan, 1988). Other definitions are quite complex- “one who is self-employed and who initiates, organizes, manages and takes responsibility for business” (Raguz & Matic, 2011), however, it is still unclear how students in different programs and at different levels of education define being an entrepreneur (Olszewska, 2015).

In the entrepreneurship literature, there are three basic theories that attempt to explain the origin of entrepreneurship in individuals. They attempt to answer the question of why some people or even some communities are more entrepreneurial than others.

(1) **Traits Theory** as propounded by McClelland (1961) as cited in (e.g., Kabui and Maalu, 2012; Magutu et al., 2010) which argued that entrepreneurs are born not made. Through interviews with over 500 entrepreneurs over a three-year period Prof Allan Jacobwitz (as cited in Magutu et al.,2010) observed that entrepreneurs commonly share certain personality characteristics which are: restlessness, independence, a tendency to be a loner, extreme self-confidence, innovative, action oriented, high on need for personal control and highly autonomous.

(2) **Entrepreneurial Events Theory** was developed by Shapero and Sokol (1982) and it is more dynamic and suggests that entrepreneurial intention is based on the interaction between personal characteristics, perceptions, values, beliefs, background, and environment. Unlike the Traits models, this approach considered the influence of the environment and focused on the interactions of several factors which are examined to predict behaviour.

(3) **Theory of Planned Behaviour** which was developed by Ajzen (1991) which proposed that there are three determinants of intention as follows: First is the attitude toward the behaviour that considered the degree to which a person has a favourable or unfavourable evaluation of a specific behaviour. Attitude is a conclusion or predisposition from the person toward an action, and it is formed through his experience and perceptions formed over his life. Second is the subjective norm which refers to "the perceived social pressure to perform or not perform the behaviour."

This variable would be influenced not only by broad cultural attitudes toward entrepreneurship, but also the attitudes of a particular individual, groups, and networks the person is most influenced by, such as family, friends, and peers. The third determinant is perceived behavioural control which "refers to the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience, as well as anticipated impediments and obstacles."

Defining Perception

There is a growing body of literature arguing that perception is playing a very important role in the decision of starting up a new business if

a person has a positive perception towards entrepreneurship, it is likely that this person will engage in an entrepreneurial venture (e.g., Khalid, 2016; Kabui and Maalu, 2012). This positive disposition can be disturbed by endogenous and exogenous factors. The endogenous factors are those which are related to one's personality, while the exogenous factors include the external ones which are not under one's control (Edelman and Yli-Renko, 2010).

Perception is a process of being aware of one's environment through the senses. How one perceives the world consequently determines how one reacts to it and it is determined by some factors like; cultural setting, memories, values, imagination, and past experiences (Kabui and Maalu, 2012). (Lindsay & Norman, 1977) argued that perception is a subjective reality because it is the way a particular person thinks about the reality.

There is another opinion which describes perception as the way in which one views, understands, or deduces the things, in another word it is how we identify, consolidate, and construe information around us (Iwu et al., 2020).

According to (Risenga and Davhana-Maselesele, 2017) Perception has been defined as a constructive process that relies on a top-down processing. This entails that people make inferences about what they see and try to make a best guess as to what the object is all about so, perception can be realized by two different ways, top-down or bottom-up processing. In the top-down processing the way by which we process information is based on our knowledge, values, and experiences, while the bottom-up processing perception is based on sensory input of information, so it is a subjective matter. Their study also demonstrated that there are many synonyms for the concept "perceptions" such as percept, perceptual experience, sensing, and detection, and there are several factors that influence perceptions like past experiences, motivation, and learning are believed to have an influence on perceptions because they could affect the way stimuli are perceived.

Perception can be realized also by the factor type which affects it either endogenous or exogenous. The endogenous factors are those which the individual has control over, such as one's personality and character,

while the exogenous ones are those that are usually beyond one's control and include external factors such as government policies, taxes, and economic situation of the country (e.g., Edelman & Yli-Renko, 2010; Kabui & Maalu, 2012). Moreover, the perceptions of the desirability and feasibility of starting up a business may be influenced by people's stage of life, or their age, as well as their exposure to exogenous factors (Peterman & Kennedy, 2003).

As mentioned before, Raguz and Matic (2011) proposed that student's perceptions and intentions towards entrepreneurship can be presented in five categories as follows:

(1) Business idea and its realization: most respondents want to start their own business as a new enterprise with a preference to manage their enterprise, and they would find their ideas from different sources like internet, recommendations, and family business.

(2) Type of potential business: the surveyed student's thought that work experience would be very important to start-up, and they also thought that the most desirable entrepreneurship activities might be business services and tourism.

(3) Motivations towards entrepreneurship: to become an independent person was the students' main desire, and the most important limits of motivation was market insecurity and high tax, while the most important social contribution to the growth of motivation was economic development and market.

(4) Financial aspects of business: the most important financial aim is enough money that they need to start their own business and the sources of funding that they would use.

(5) The source of information needed to generate business idea and its success market realization: the most important activity before foundation of an enterprise is market exploring and the most important source of information about entrepreneurship is internet.

Davidsson, 1991 argued that Perceptions about entrepreneurship may affect the supply side and the demand side of entrepreneurship. On the supply side, or the "pool" of potential entrepreneurs, important perceptions include both willingness and perceived ability to become an entrepreneur,

also educational levels and the availability of entrepreneurship training programs are possible determinants of perceived entrepreneurial skills. According to **Peterman and Kennedy (2003)** perceptions of the desirability and feasibility of starting a business may be influenced by people's stage of life, or their age, as well as their exposure to exogenous influences.

Magutu and colleges, 2010 argued that although the utility derived from self-employment may exceed that derived from other career alternatives, it is generally not a sufficient condition for an individual to engage in entrepreneurial behaviour, and they demonstrated that the entrepreneurial behaviour has three necessary conditions,

1. The motive to pursue self-employment (or other entrepreneurial behaviour).
2. The perception of an apparently lucrative entrepreneurial opportunity.
3. Access to the means to pursue that opportunity. Without the simultaneous existence of these three pre-requisite conditions entrepreneurial behaviour will not eventuate. Moreover, their study concluded that the perception of individuals or students as entrepreneurs can be characterized by six believes:
 1. The believe that entrepreneurship is positively related to well-being of the individual and considering it as a source of wealth and prosperity of the individual.
 2. Believe that there are some challenges in entrepreneurship such as financial challenges, high levels of education, luck, no support from institutions or mentors, and skills deficiency.
 3. A belief in own destiny and being ready for change.
 4. Believe about risk in entrepreneurship that causes the financial failures.
 5. A belief in the different personality characteristics that differentiate the entrepreneurial person from the non-entrepreneurial one.
 6. Finally, a belief that it is easy to become an entrepreneur.

Factors Affecting Persons' Perception toward Entrepreneurship

The perspectives and believes of students toward entrepreneurship are the results of their immediate social and cultural environment. So, the orientation and conducts of youth and young graduates are affected by various individual variables, which imply that the decision and desirability of becoming an entrepreneur or employee reflects the environmental and economic forces (Alain et al., 2006).

A person's perception of entrepreneurship will be shaped by factors endogenous and exogenous. Endogenous factors are those that are within one's control and relate to issues such as character. The exogenous factors are beyond a person's control and relate to environmental issues such as taxation rates, inflation, and recession (Edelman & Yli-Renko, 2010). While these factors may affect all, those with a positive perception of entrepreneurship will perceive themselves as having what it takes to overcome obstacles, moreover an individual's perception of self and environment determine the goals the individual sets for him/herself, and the expected outcome of actions taken. (Moy & Wright, 2003).

Perception of the opportunity is considered as one of the exogenous factors that may affect the perception toward the entrepreneurship and is seen as a prerequisite condition to entrepreneurial behaviour. Those who take up entrepreneurship perceive profitable opportunities while others do not. Shane and Venkataraman (2000) emphasize that entrepreneurship consists of two related processes, first discovering the entrepreneurial opportunities and, second the exploitation of such opportunities, this is arising from the suggestion that entrepreneurship research should deal with early-stage phenomena, such as how opportunities are detected and acted upon, or how new organizations come into being.

Kelly and others (2011) through a survey of fifty- nine countries point out indicators of attitudes towards entrepreneurship. These indicators include the extent to which people think there are opportunities for starting business, their perceived capability of doing so, their fear of failure and the level of risk one is willing to take. They further note that these attitudes are

largely shaped by societal perceptions such as through media images of entrepreneurship.

Studies that have focused on how students perceive entrepreneurship whether amongst pre-university students or among undergraduate students have concluded that social groups and the school have the greatest influence on whether students perceive entrepreneurship as a career option. Kelly, and colleges (2011) through a survey of fifty- nine countries point out indicators of attitudes towards entrepreneurship.

These indicators include the extent to which people think there are opportunities for starting business, their perceived capability of doing so, their fear of failure and the level of risk one is willing to take. They further note that these attitudes are largely shaped by societal perceptions such as through media images of entrepreneurship. Shinnar, and colleges (2009), in their research on non- business students' attitudes towards entrepreneurship in Northern Carolina universities, found that parents played a great role in shaping the students' attitudes.

Motivation as an exogenous factor which affect the perception as follows: An entrepreneur needs to stay motivated to sustain the desire to start their own business and to convince others to believe in the business venture (Iwu et al., 2020). The transformation process of an individual into an entrepreneur can be described as entrepreneurial motivation (Jensen, 2003). Motivation may be defined as a force that stimulate an individual's energies to act in a manner that enables him to achieve his own goals (Lewicka, 2013).

As cited in (Iwu et al., 2020), Maslow's need hierarchy theory (1970) and McClelland's acquired needs theory (1961) assure the idea that motivation can enhances the individual's zeal, creativity, and ability to achieve his own goals such as adopting entrepreneurship as a career option.

There are two types of barriers that faces the entrepreneurs either financial or non-financial barriers, generally these barriers are one of the exogenous factors that affect the perception toward the entrepreneurship. Barriers faced by entrepreneurs from developing countries may differ from those in developed countries, this is because developed countries may have

more institutional support and an education system that is more advanced thus reducing potential barriers (Sandhu et al., 2011). Research tends to indicate that barriers explain a significant percentage of the variance in behaviour (Lien et al., 2002). Strength of perceived barriers is known to negatively impact the entrepreneurial intentions of students (Pruett et al., 2009).

Several other scholars have also found that perceived barriers negatively influence the entrepreneurial attitude and entrepreneurial intentions of students (Malebana, 2015). Barriers to entrepreneurship are numerous; they can vary, depending on the individual or group; can have different strengths; and can have effects in different combinations (Kouriloff, 2000). These barriers to entrepreneurship may be related to cultural, political, economic, or psychological factors (Kouriloff, 2000).

Henderson and Robertson (2000) refer to studies which point out key predisposing factors that guide a student's ambition towards entrepreneurship. These include parental influence and family role models, previous work experience and the attitudes the student has of himself or herself. They noted that entrepreneurial aspirations are likely to come from homes where their parents owned their own business and that many aspiring entrepreneurs had received significant responsibility at a young age to the extent of some engaging in entrepreneurial ventures.

As cited in Henderson and Robertson (2000), Curran (1996) in the research among high school students in Scotland found that teachers and the media had a major influence on students' perception of entrepreneurship. In their findings, both the teachers and the TV introduced a negative image of the entrepreneur as one constantly facing money worries.

Saeed (1996) in his evaluation of entrepreneurship education in Australia observed that, though there was a move away from traditional subjects and an increase in subjects that can generalize entrepreneurship such as business studies, the general perception of entrepreneur in Australia was negative due to the focus on those who had failed. The school system failed to teach entrepreneurial spirit and the awareness of self-employment as a career option. World Economic Forum (2010) noted that fear of failure,

cultural barriers and role of family and friends had the greatest influence on students' perception of entrepreneurship.

According to **Obembe and other (2014)** there are four factors that may affect the students' perception toward entrepreneurship which are capital, university education, survival, and familiarity. Other factors that may influence their perception towards entrepreneurship could include the availability of business opportunities, capability to run a business, level of risk involved, and the fear of failure in starting and running a business (**Iwu et al., 2019**).

Self-efficacy which is considered to be one of the indigenous factors that affect the perception, and it is related to a person's perception of ability to execute a target behaviour (**Bandura, 1978**). Shapero's model assumes that self-efficacy is affecting intentions towards entrepreneurship and therefore, influences the perceived feasibility of starting a business, and it is influenced by the person's prior experience and social influence (**Shapero & Sokol, 1982**). **Peterman and Kennedy (2003)** argued that best practice entrepreneurship programs are expected to increase the self-efficacy of participants.

The literature review on the influence of gender differences on entrepreneurial intentions (as an endogenous factor) has broadly demonstrated two types of results. Although many of the studies in the literature argued that male students have stronger entrepreneurial intentions than females (e.g., **Haus et al., 2013; Sánchez and Licciardello, 2012**), some other studies have found no effect of gender on entrepreneurial intentions (e.g., **Karimi et al., 2013; Majumdar and Varadarajan, 2013**). **Strobl and colleagues, 2012** drew on a survey of university students and found that male students showed more positive attitudes towards entrepreneurship and much more entrepreneurial intentions. **Liñan et al. (2010)** found that in comparison with male students, the entrepreneurial intentions of female students were affected by the cultural context in where they live.

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Perception of Entrepreneurship and Education

Entrepreneurship education has been recognized as one of the important determinants that could influence students' career decisions as well as their awareness of other employment options (Belwal et al., 2015; Fayolle et al., 2006). Enterprise education can, therefore, influence the performance of entrepreneurs by enhancing their profitability, entrepreneurial spirit, entrepreneurial attitudes, and chances of survival (Gürol and Atsan, 2006; Belwal et al., 2015).

In recent years, the role of academic institutions in developing entrepreneurship programmes have been increased through either formal education or training because entrepreneurship education plays an important role in developing entrepreneurs (Sulaiman and Wan Yusoff, 2013; Teh Yi et al., 2014). The increasing importance of entrepreneurship education and its ability to contribute to economic growth and job opportunities have inspired many universities to offer entrepreneurship education subjects either in academic or non-academic programs (Teh Yi et al., 2014).

Furthermore, many researchers tried to answer the question if entrepreneurship education can influence the entrepreneurial perceptions and intentions (Raguz and Matic, 2011). Some researchers argued that education becomes one of the ways in which entrepreneurship can be encouraged (e.g., Iwu et al., 2019; Potishuk & Kratzer, 2017), and their research has proven that education, and especially entrepreneurship education, enhances entrepreneurship success. Therefore, entrepreneurship education and enterprise creation have a positive relationship with economic development (Pittaway & Cope, 2007). Research has also proven that

entrepreneurs who succeed are those who are well educated, even if it is not necessarily in the entrepreneurship field (O'Connor, 2013).

Bechard and Toulouse (1998) define entrepreneurship education as a teaching process that provide information, training and educates anyone that interest in entrepreneurial activities. As cited in (Teh Yi et al., 2014) Vesper and McMullen (1988) pointed out that one of the main differences of entrepreneurship education from typical business education is that entrepreneurship education is more quickly generate a greater variety of different ideas for how to exploit a business opportunity, and the ability to project a more extensive sequence of actions for entering business, and entering a business is completely different activity compared to business management.

Teh Yi and colleges, 2014 concluded that the entrepreneurship education should not only provide theoretical knowledge but also able to assist their students on establishing an entrepreneurship mindset through developing entrepreneurial skills, behaviours and attitudes, and train them with entrepreneurial abilities to support them to start their own business venture or engage in entrepreneurship activities.

Olszewska (2015), conclude that not only knowledge and skills development should be implemented in the entrepreneurial courses, but also active business idea search, mentoring and guidance could be offered, and the personal traits can be developed during studies and attitudes can be modified to encourage entrepreneurial behaviour.

Peterman & Kennedy (2003) research provides empirical evidence to support the inclusion of the entrepreneurship programmes or enterprise education to the students as these programmes influence their perception toward the entrepreneurship. Kourilsky (1995) argued that the supply of entrepreneurs can be strongly affected by providing an environment at the early stages of development, such as in schools and tertiary institutions, that encourages positive and self-enabling perceptions of potential entrepreneurs so, university students form the pool that will supply future entrepreneurs.

Kruegar and Brazeal (1994) also assert that preparation is a key element for creating potential entrepreneurs because “opportunities are seized by those who are prepared to seize them”. They also assure that perceptions about entrepreneurship are extremely important and set the

foundation for becoming an entrepreneur long before an individual makes the decision to become one.

As cited in (Kabui and Maalu, 2012) studies that have focused on the students' perception towards entrepreneurship either between pre-university students or between undergraduate students reached to a conclusion that social groups and the school have the greatest influence on whether students perceive entrepreneurship as a career option. It is also argued that education and entrepreneurship training programmes is one of the factors that determine if a person has the skills to be an entrepreneur or not (Risenga and Davhana-Maselesele, 2017).

Concept of Entrepreneurial Intention

Entrepreneurial Intention is often used interchangeably with entrepreneurship. The majority of research employs entrepreneurial intention as a method for assessing the level of entrepreneurship activity. Bird and West (1998) defined entrepreneurial intention as a mental condition that motivates a person to pursue a particular path, while Gartner (1988) stated that the individual's entrepreneurial intentions can be defined as his or her strong desire to establish a business or form a new venture in the future. Another definition of entrepreneurial intention introduced by Thompson (2009) is a person's plan to start an entrepreneurial venture at some time in the future, while Crant (1996) simply defined entrepreneurial intention as a person's desire to own a business, or it is a self-employment desire as proposed by Douglas and Shepherd (2002).

The intention of a person to start a new business venture with the primary goal of making money at some time in the future is the entrepreneurial intention definition as mentioned by Nabil and Zhang (2020). These intentions also constitute a conscious mental state that anticipates the action (Shook et al., 2003). According to Ajzen (1991) and Krueger et al. (2000), an individuals' intention is the best predictor of their planned behaviour, especially when the behaviour is infrequent and difficult to monitor or involves an unknown period of time.

It is critical for public policy to develop and encourage entrepreneurship in students in order to prepare them for future employment

(Branchet et al., 2011). Graduate entrepreneurship is a sub-area of entrepreneurship that has gotten a lot of attention because of its contribution as a determinant of economic development (Davey et al. 2011). Graduate entrepreneurship is defined as the connection between the university student as an outcome of the university education and entrepreneurial start-up in terms of an individual's career orientation and attitude toward self-employment (Nabi & Holden, 2008).

Furthermore, university education can assist young people to develop an entrepreneurial attitude (Gorman et al., 1997; Pittaway and Cope, 2007). Universities can also encourage entrepreneurship through introducing applied research with partners, providing consulting services, or acting as mentors (Ferreira et al., 2006).

One of the primary challenges of entrepreneurship scholars and educators has been determining how to measure the individual's desire to start-up a new business (e.g., Nabil and Zhang, 2020; Thompson, 2009; Douglas and Shepherd, 2002). Exploring entrepreneurial intentions is gaining attention due to the vital importance of intentions in predicting individuals' decisions of career orientation, entrepreneurial plans, and actual involvement in entrepreneurial activities (Verheul et al., 2012).

Entrepreneurial Intention Models

At least two major directions are now being studied in the current research regarding entrepreneurial intentions. The first was established by Ajzen (1991) as the Theory of Planned Behaviour (TPB), while the second was proposed by Shapero and Sokol (1982) as the Model of Entrepreneurial Event (MEE). Entrepreneurial intention models assume that entrepreneurial behaviour is intentionally planned, meaning that understanding the cognitive process and its causes is crucial (Liñán, 2008).

Ajzen believed that individual attitudes toward behaviours, subjective norms, and the perception of behavioural control may explain entrepreneurial intentions. On the other hand, Shapero and Sokol were concerned with the sense of desire, the tendency to act, and the perception of feasibility. Both approaches highlight a number of individual attributes and perspectives that contribute to various entrepreneurial actions. Both

models contain a perceived behavioural control or feasibility element, and so a perceived ability to carry out actions like starting-up a business. Moreover, if a person has a positive attitude toward entrepreneurship, he or she will experience positive results from it (Davey et al. 2011).

Because none of the models is detailed, efforts were made to merge them. Krueger et al. (2000) made one of these attempts to develop a model of entrepreneurial intentions. They argued that personal or situational endogenous characteristics influence perceived social norms and desirability, as well as perceived self-efficacy and perceived feasibility, all of which have a strong influence on entrepreneurial intentions.

In recent years, the theory of planned behaviour (TPB) has been employed as a theoretical framework to understand the entrepreneurial intentions of university students (Su et al., 2021), so in this study, the researcher will adopt Ajzen (1991) model, the theory of planned behaviour (TPB), which demonstrated that, the greater the desire to practise a behaviour, the more likely it will be implemented. The TPB, when applied to human entrepreneurial intents, proposes that a mixture of three antecedents, namely personal attitudes, subjective norms, and perceived behavioural control, work as initiators of the desire to start a new business.

Personal attitudes are emotional and subjective assessments of a given behaviour, such as what people find convenient, attractive, or beneficial (Ajzen 1991). It includes not only affective (I like it, it is attractive), but also evaluative considerations (it has advantages) (Liñán & Chen 2009).

Subjective norms refer to normative values and adherence to them, as well as perceived social pressures from reference people to engage in or prevent specific behaviours (Ajzen 1991), it measures the perceived social pressure to carry out—or not to carry out—entrepreneurial behaviours, those reference individuals, such as family, friends, and close colleagues.

The subjective judgement of the ease or difficulty of doing a task or behaviour, as well as the level of control over the behaviour, is referred to a perceived behavioural control PBC (Ajzen 2002). As a result, it's related to self-efficacy (SE) (Bandura, 1994) and perceived feasibility (PF) (Shapero & Sokol, 1982). All three elements connect to a perception of capability in terms of carrying out firm-creation activities. Furthermore, new research has

highlighted the distinction between PBC and SE (Ajzen, 2002). PBC would contain not just the sense of being able, but also the perception of the behaviour's controllability (Liñán & Chen 2009).

Bird (1988) believed that both personal and environmental factors affect entrepreneurial intentions. Karimi and others 2017 concluded that personality traits and environmental factors (i.e., perceived motives and barriers) has a significant impact on attitudes and perceived behavioural control, which drives entrepreneurial intentions.

Factors Affecting the Entrepreneurial Career Intentions

Entrepreneurial motivation appears to be complicated and involves a dynamic interaction of a number of elements (Nabi et al., 2006). Ryan and Deci, 2000 demonstrated that motivation is essential in our daily lives, and it serves as the foundation for biological, behavioural, and social regulation. This is due to the fact that motivation entails energy, direction, and intention. Goals and motives are important in predicting human behaviour so that, there is a relationship between goals, motivations, and behaviour.

A study on investigating the motivators and barriers to youth entrepreneurship with entrepreneurial intention of young entrepreneurs conducted by, Kim-Soon et al. (2013) suggest that youths who are truly committed to starting and owning a business as would-be entrepreneurs can be identified and targeted for development through government entrepreneurship interventions initiatives.

Several elements, such as needs, values, wants, habits, and beliefs, can influence the decision to be involved in entrepreneurial actions (Bird, 1988; Lee & Wong, 2004). Early studies in the field of entrepreneurship and graduate career choices were mainly concerned with an individual's personality (e.g., Gartner, 1988; Low and MacMillan, 1988). Zhao and others 2010 have confirmed a significant relationship between several personality dimensions (e.g., extraversion, conscientiousness, openness to experience, and emotional stability) and entrepreneurial intentions and performance, and argued that risk perception is also linked to the intentions.

There are some cognitive elements introduced by Ajzen (1991), who refers to the cognitive elements that influence intention as "motivational antecedents". According to (Liñán, 2004) the more favourable antecedents

would improve the likelihood of starting-up a business. Several authors argued that situational considerations, also, have an impact on entrepreneurial intentions (e.g., Ajzen, 2001; Boyd & Vozikis, 1994; Tubbs & Ekeberg, 1991). These situational considerations could include things like time limits, task difficulties, and the impact of others through social pressure (Lee & Wong, 2004). Another study conducted by (Krueger, 1993) demonstrated that external influences have an impact on one's attitude toward entrepreneurship.

To stimulate the individual's intention towards self-employment, Ummah (2009) advised that policymakers and educators should investigate the elements affecting the desirability of self-employment.

Research problem and questions

As mentioned before, uncertainties about the economy especially in the developing countries lead corporates to downsizing and declining the number of the available job vacancies (e.g., Obembe et al., 2014; Khalid, 2016). As a result, the rate of unemployment has been increased. According to (Statistical yearbook, Central Agency for Public Mobilization and statistics) the total unemployment rate from 2013 to 2016 was (13.2%, 13%, 12.8%, and 12.5%) which is considered roughly stable, so the problem of this study can be identified as follows:

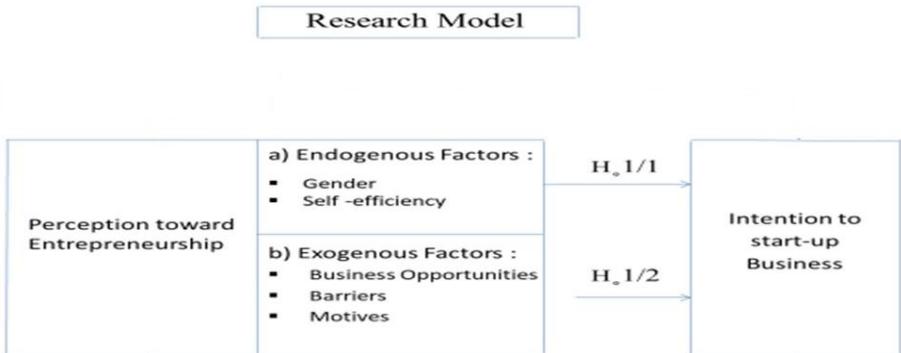
“The young people in Egypt historically used to work in the government sector, and that opportunity is no longer available due to the excessive number of employees in the governmental sector and the uncertainties about the Egyptian economy. Accordingly, there is a necessity for the youth to be directed to entrepreneurship.”

Based upon the previous illustration, a number of research questions will be asked:

1. Why some university students decide to pursue entrepreneurial activities while others search for employment?
2. How the university students perceive entrepreneurship?
3. What are the key factors influencing students' intent to create a new venture?

4. How does the students’ perception toward entrepreneurship affect their intention to start-up their own business after graduation?
5. Is there a relationship between education and the entrepreneurial perception, attitudes, intention or action?

Research Hypotheses and Model



The research model and hypothesis can be shown as follows: -

- 1- $H_{01/1}$: There is no significant relationship between the endogenous factors (gender, and self-efficiency) that perform the students’ perception toward entrepreneurship and their intention to start-up their own business after graduation inside universities under investigation, taken separately.
- 2- $H_{01/2}$: There is no significant relationship between the exogenous factors (business opportunities, barriers, and motives) that perform the students’ perception toward entrepreneurship and their intention to start-up their own business after graduation inside universities under investigation, taken separately.

Research Methodology

This study was designed to investigate the relationship between the Egyptian university student's perception toward the entrepreneurship and their intention to start-up their own business after graduation.

The instrument of collecting data for this study was a questionnaire containing 69 questions. The questionnaires were distributed among the university students who studying commerce in both public and private universities located in Egypt, through an online link that contains the questionnaire items translated into Arabic among the sample units between the period from May 2021 to October 2021.

Respondents had about 20 minutes to complete an online questionnaire. The survey questionnaire was prepared based on validated and reliable measurement scales found in the literature. The items of the questionnaire are presented in the Appendix. This questionnaire consisted of three major parts; part (1) which measure the students' perceptions under investigation toward the entrepreneurship and contain four sections relating to the following issues (Generalized Self-Efficiency Scale (GSES), Perceived barriers scale, Perception of entrepreneurial opportunities, and the Aspiring Entrepreneurial Motive Questionnaire (AEMQ)).

(a) Generalized Self-Efficiency Scale (GSES) to measure the student's perception toward their self-efficiency as an endogenous factor that affect their perception toward the entrepreneurship. (GSES) is a ten-item scale, that has been translated to English by Mary Wegner from the original German version by Schwarzer and Jerusalem, 1992 as cited in (Schwarzer et al.,1995).

The total score is calculated by finding the sum of all items, which is ranges between 10 and 40. For each item there are four choices from 1 which represents (Not at all true) to 4 which means (Exactly true), the higher score indicating more self-efficacy.

(b) Perceived barriers are measured on a 5-point scale to assess the degree to which the university students under investigation feel supported or hampered by the infrastructure when starting their own business, the

researcher used the scale that was advocated in research methodology literature (e.g., Kuckertz & Wagner, 2010; Hoogendoorn et al., 2019).

(C) Perception of entrepreneurial opportunities which is mainly measured by the ability of entrepreneur alertness and entrepreneur opportunity identification (Zhang et al., 2021) and consists of three items.

(d) The perception of motives scale that has been used in this study was originally developed by Yalcin & Kapu's (2008), as cited in (Aziz et al., 2012) which is based on the Aspiring Entrepreneurial Motive Questionnaire (AEMQ). This scale consisted of 30 items that measured four entrepreneurial motives (Finance Motive, Recognition Motive, Freedom Motive, Family Tradition Motive), and three factors which may affect motives also (Economic Conditions, Marketing Opportunity, and Governance). The answers could be given by using a five-point Likert-type scale ranging from 1= strongly Disagree to 5= strongly Agree.

Part (2) the Entrepreneurial Intention Questionnaire (EIQ) which measures the students' intention under investigation to start-up their own business after graduation. The intention model that has been used in this study was originally developed by Liñán and Chen (2009) based on the three motivational factors determined by Ajzen (1991) as follows: (personal attitude which refers to the degree to which the individual holds a positive or negative personal valuation about being an entrepreneur (Liñán and Chen 2009), subjective norms which refer to the perception that "reference people" would approve of the decision to become an entrepreneur or not (Ajzen, 2001), and perceived behavior control that means the perception of the ease or difficulty of becoming an entrepreneur (Liñán and Chen 2009)). The answers could be given by using a seven-point Likert-type scale ranging from 1= totally Disagree to 5= totally Agree.

Finally, the respondents were asked to give some personal information about themselves like (their gender, their university type, their area of specialization, and if any of their family have a prior experience of running-up their own business).

Reliability and validity tests were performed on each measure of the research instrument using the SPSS Alpha Cronbach test, to investigate the

internal consistency of the questionnaire. The results came back with alpha coefficients of more than 0.7 which indicated high reliability and validity.

The total number of responds that have been collected were 220 questionnaires. The following demographic data were collected: gender, studying specialization, the university type, and the prior experience of starting-up the own business described by three questions (Have your parents ever started a business, has anyone else you know started a business, and have you ever started a business). The following table summarizes the demographic data of the participants.

Table 1: The sample's profile

Demographic Variables		Public University Frequencies	Percentage	Private University Frequencies	Percentage	Total	Percentage
Gender	Male	87	39.5%	32	14.5%	119	54%
	Female	52	23.6%	49	22.3%	101	46%
	Total	139	63.2%	81	36.8%	220	100%
specialization	Business	62	28.2%	15	6.8%	77	35%
	Accounting	27	12.3%	18	8.2%	45	20.5%
	Economics	12	5.5%	20	9.1%	32	14.6%
	Other	38	17.3%	28	12.7%	66	30%
	Total	139	63.2%	81	36.8%	220	100%
Have your parents ever started a business?	Yes	96	43.6%	51	23.2%	147	66.8%
	No	43	19.5%	30	13.6%	73	33.1%
	Total	139	63.2%	81	36.8%	220	100%
Has anyone else you know started a business?	Yes	117	53.2%	61	27.7%	178	80.9%
	No	22	10%	20	9.1%	42	19.1%
	Total	139	63.2%	81	36.8%	220	100%
Have you ever started a business?	Yes	14	6.4%	13	5.9%	27	12.3%
	No	125	56.8%	68	30.9%	193	87.7%
	Total	139	63.2%	81	36.8%	220	100%

Source: statistical results

Testing the Study's Model and Hypothesis

The proposed research hypothesis was tested to figure out the answers to research questions through a series of correlation and regression analysis.

Table 2: Correlation Matrix for the Endogenous Factors of Perception and the Intention Model:

	X _{1.a}	X _{1.b}	X ₁	Y ₁	Y ₂	Y ₃	Y
X _{1.A}	1						
X _{1.B}	-.241*	1					
X ₁	.660**	.651**	1				
Y ₁	-0.062	.515**	.459**	1			
Y ₂	-.202**	.458**	.284**	0.327**	1		
Y ₃	-0.117	.504**	.383**	0.200**	0.504**	1	
Y	-.255*	.630**	.463**	0.675**	0.808**	0.662**	1
* Correlation is significant at the 0.05 level (2-tailed).							
** Correlation is significant at the 0.01 level (2-tailed).							

Source: statistical results

The table (2) illustrates the followings:

- a- The correlation coefficient with only one star (*) can express the significance correlation at 5% level, such as the correlation coefficient between X_{1.a} (gender) and Y: students' intention to start-up a business) is (-.255), which means that there is a negative correlation between them.
- b- The correlation coefficient with the two stars (**) express a strong relationship at 1% significance level, Such as: -
 - The correlation coefficient between X_{1.b} (perception of self-efficiency) and Y₁ (personal attitude) is (.515), which means that there is a positive correlation between them.
 - The correlation coefficient between X_{1.b} (perception of self-efficiency) and Y₂ (subjective norms) is (.458), which means that there is a positive correlation between them.

- The correlation coefficient between $X_{1.b}$ (perception of self-efficiency) and Y_3 (perceived behavioural control) is (.504), which means that there is a positive correlation between them.
 - The correlation coefficient between $X_{1.b}$ (perception of self-efficiency) and Y (students' intention to start-up a business) is (.630), which means that there is a positive correlation between them.
- c- It can be noted that the correlation coefficients between Y_1 (personal attitude), Y_2 (subjective norms), Y_3 (perceived behavioural control), and Y (students' intention to start-up a business) are (0.675, 0.808, and 0.662), which means that there is a positive correlation between them.
- d- Also, we can note that there is no significant correlation between $X_{1.a}$ (gender) and Y_1 (personal attitude) or Y_3 (perceived behavioural control), but there is a significant relationship between total X_1 (the endogenous factors) and Y (students' intention to start-up a business) which is equal (.463), so we can conclude that: There is a strong positive relationship between the endogenous factors of perception and the intention model.

Table 3: Correlation Matrix for the Exogenous Factors of Perception and the Intention Model:

	$X_{2.a}$	$X_{2.B}$	$X_{2.c}$	X_2	Y_1	Y_2	Y_3	Y
$X_{2.A}$	1							
$X_{2.B}$.724**	1						
$X_{2.C}$.584**	.459**	1					
X_2	.868**	.798**	.786**	1				
Y_1	.295**	.336**	.324**	.289**	1			
Y_2	.415**	.436**	.512**	.525**	.327**	1		
Y_3	.402**	.353**	.333**	.464**	.200**	.504**	1	
Y	.433**	.451**	.494**	.521**	.675**	.808**	.662**	1
* Correlation is significant at the 0.05 level (2-tailed).								
** Correlation is significant at the 0.01 level (2-tailed).								

Source: statistical results

By scanning the correlation coefficients in the previous matrix, we can notice that the correlation coefficient with the two stars (**) express a

strong relationship at 1% significance level which means that there is a positive strong correlation between the variables.

It can be noted that all the previous relationships are positive and strongly correlated, there are not any negative weak relations, so we can conclude that: There is a strong positive relationship between the exogenous factors of perception and the intention model.

Table 4: The results of regression test related to the endogenous and exogenous factors affecting the students' perception and the intention model

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Y (Constant)	0.357	0.229		1.555	0.121		
X _{1.a} (Gender)	-0.066	0.040	-0.068	-1.627	0.105	0.948	1.055
X _{1.b} (Self-efficiency)	0.444	0.066	0.458	6.711	0.000	0.359	2.789
X _{2.a} (business opportunity)	-0.042	0.076	-0.044	-0.552	0.582	0.260	3.843
X _{2.b} (barriers)	-0.195	0.068	-0.157	-3.198	0.002	0.531	1.816
X _{2.c} (motives)	0.400	0.086	0.330	4.648	0.000	0.332	3.013
Correlation coefficient (R)						0.802	
Determination Coefficient (R²)						0.643	
Adjusted determination coefficient (Adj.R²)						0.634	
F-test						77.022	
P-value						0.000	

Source: statistical results

From the multiple regression table (4) we can note that:

- The p-value of the model is less than 5% (0.000) which is significant.
- The total correlation (R) equal (0.802), which is a strong positive correlation.

- The coefficient of determination (R^2) is (0.643), and this indicates that the independent variables (factors affecting the students' perception toward entrepreneurship) explain (64.3%) of any change in their intention to start-up a business.
- We also find that Variance Inflation Factor (VIF) for every variable of independent variables coefficient did not exceed the maximum value which is equal to (5), and tolerance is greater than (0.1) for each variable which means that there is no multi-collinearity among the explanatory variables so the researcher can rely on the results of this model.
- The regression equation will be as follows:

$$Y = b_0 + b_1X_{1.a} + b_2X_{1.b} + b_3X_{2.a} + b_4X_{2.b} + b_5X_{2.c}$$

when:

Y: dependent variable (the students' intention to start-up a business).

X_{1.a}: Gender as an endogenous factors affecting the students' perception toward entrepreneurship.

X_{1.b}: Self-efficiency as an endogenous factors affecting the students' perception toward entrepreneurship.

X_{2.a}: Perception of business opportunity as an exogenous factors affecting the students' perception toward entrepreneurship.

X_{2.b}: Perception of business barriers as an exogenous factors affecting the students' perception toward entrepreneurship.

X_{2.c}: Perception of motives as an exogenous factors affecting the students' perception toward entrepreneurship.

So,

The students' intention to start-up a business = 0.357 - 0.066 (gender) + 0.444 (self-efficiency) - 0.042 (business opportunities) - 0.195 (barriers) + 0.400 (motives).

From the regression and correlation analysis we can note that:

1. There is no significant relationship between the student's gender and his/her intention to start-up a business after graduation, so we accept the null hypothesis and reject the alternative one.

2. There is a positive significant relationship between the student's perception of self-efficiency and his/her intention to start-up a business after graduation, so we reject the null hypothesis and accept the alternative one.
3. There is no significant relationship between the student's perception of business opportunity and his/her intention to start-up a business after graduation, so we accept the null hypothesis and reject the alternative one.
4. There is a negative significant relationship between the student's perception of barriers and his/her intention to start-up a business after graduation, so we accept the null hypothesis and reject the alternative one.
5. There is a positive significant relationship between the student's perception of barriers and his/her intention to start-up a business after graduation, so we reject the null hypothesis and accept the alternative one.

From the previous analysis the researcher can conclude the followings regarding the study hypothesis: -

- The only endogenous factor that affect the students' intention to start-up a business after graduation is his/her perception of self-efficiency, but the gender of the student has no effect on their intention to do that.
- The exogenous factors that affect the students' intention to start-up a business after graduation are the perceived business barriers and their perception of business motives, but their perception of business opportunities has no effect on their intention to do that.

The Key Finding and Discussion

The field study revealed several key findings. In this part a brief on those findings is demonstrated as follows:

(a) The Endogenous Factors that Perform the Students' Perception towards Entrepreneurship and their intention to start-up a business

This study examined the direct effect of only two endogenous factors (gender and self-efficiency) that performing the perception of the students under investigation toward

entrepreneurship and their intention to start-up their own business after graduation. This is presented by the first part of the first hypothesis which proposed that “There is no significant relationship between the endogenous factors (gender, and self-efficiency) that perform the students’ perception toward entrepreneurship and their intention to start-up their own business after graduation inside universities under investigation, taken separately.”

The field study revealed a number of key findings related to this hypothesis. Firstly, the findings related to gender as an endogenous factor performing the students’ perception towards entrepreneurship and their intention to start-up a business after graduation, indicate that there is no significant relationship between the student’s gender and his/her intention to start-up a business after graduation.

Secondly, the findings related to the self-efficiency as an endogenous factor performing the students’ perception towards entrepreneurship and their intention to start-up a business after graduation, indicate that there is a positive and significant relationship between the student’s perception of his/her self-efficiency and his/her intention to start-up a business after graduation.

This means that the student’s self-efficiency as an endogenous factor that performs his/her perception toward entrepreneurship has a significant effect on the student’s intention to start-up a business after graduation. Unlike gender, when the student’s perception of self-efficiency increases, his/her intention to start-up a business will also increase but, take into consideration that there are other factors that may affect significantly this relationship.

Based upon these findings, the researcher decided to partially accept the null hypothesis which proposed that, (There is no significant relationship between the endogenous factors (gender, and self-efficiency) that perform the students’ perception toward entrepreneurship and their intention to start-up their own business

after graduation inside universities under investigation, taken separately) “accept only the gender part” and partially reject the alternative one “reject only the perception of self-efficiency part”.

This result is in disagreement with most of the earlier studies like, [Ahl's \(2006\)](#) and [Marlow's \(2002\)](#) studies that supported the effect of gender as an endogenous factor performing the perception of entrepreneurship on the intention to be an entrepreneur. Their studies argued that entrepreneurship has traditionally been a male-dominated field, with men owning more businesses than women.

The study conducted by [Matthews & Moser \(1995\)](#) also supported the effect of gender on the interests of owning small firms. Their study argued that the effect of gender was expected to vary according to the family background, the study proposed that males with a family background in business have more interests in owning small firms than the females whose families have the same background.

According to [Sandhu et al.'s \(2011\)](#) study, gender was found to be an important factor influencing entrepreneurial intention. In comparison to female postgraduate students, the results show that male postgraduate students are more likely to pursue entrepreneurship.

On the other hand, the results of our study are in agreement with the results produced by [Gupta et al., \(2009\)](#) who didn't support the effect of gender on entrepreneurial intention but found that people who identified more with masculine characteristics had more entrepreneurial inclinations than those who identified with these characteristics less. Their findings imply that how gender (masculinity and femininity) and entrepreneurship are socially constructed influences intentions to become an entrepreneur, rather than biological differences between males and females.

Regarding self-efficiency, the results of our study are not consistent with [Cooper & Lucas's \(2007\)](#) study which argued that self-efficacy could be a prerequisite, as in a necessary but not

sufficient condition for the entrepreneurial intent. Whatever the nature of this relationship, enterprisers can be viewed as a field experiment demonstrating that self-confidence in entrepreneurship can increase without a continuous modification in intention. As a result, there is no clear cause and effect association between entrepreneurial self-confidence and entrepreneurial intention.

On the other hand, the results of our study are in agreement with Liu et al.'s (2019) study that demonstrated that entrepreneurial self-efficacy has a strong and positive influence on both entrepreneurial attitude and entrepreneurial intention, also the entrepreneurial attitude mediates the relationship between entrepreneurial self-efficacy and the intention to start-up a business.

(b) The Exogenous Factors that Perform the Students' Perception towards Entrepreneurship and their intention to start-up a business

This study examined the direct effect of only three exogenous factors (business opportunities, perceived barriers, and motivation) that performing the perception of the students under investigation toward entrepreneurship and their intention to start-up their own business after graduation. This is presented by the second part of the first hypothesis which proposed that "There is no significant relationship between the exogenous factors (business opportunities, barriers, and motives) that perform the students' perception toward entrepreneurship and their intention to start-up their own business after graduation inside universities under investigation, taken separately".

The field study revealed a number of key findings related to this hypothesis. Firstly, the findings related to the business opportunities as an exogenous factor performing the students' perception towards entrepreneurship and their intention to start-up a business after graduation, indicate that there is no significant relationship between the student's perception of business opportunities and his/her intention to start-up a business after graduation.

Secondly, the findings related to the perceived barriers as an exogenous factor performing the students' perception towards

entrepreneurship and their intention to start-up a business after graduation, indicate that there is a significant and negative relationship between the student's perception of the perceived barriers and his/her intention to start-up a business after graduation.

This means that the student's perception of perceived barriers as an exogenous factor that performs his/her perception toward entrepreneurship has a significant effect on the student's intention to start-up a business after graduation. Unlike the perception of business opportunities, when the student's perception of the perceived barriers increases, his/her intention to start-up a business will decrease but, take into consideration that there are other factors that may affect significantly this relationship.

Thirdly, the findings related to the perception of motives as an exogenous factor performing the students' perception towards entrepreneurship and their intention to start-up a business after graduation, indicate that there is a positive and significant relationship between the student's perception of the motives and his/her intention to start-up a business after graduation.

This means that the student's perception of motives as an exogenous factor that performs his/her perception toward entrepreneurship has a significant effect on the student's intention to start-up a business after graduation. Unlike the perception of business opportunities and like the perception of business barriers, when the student's perception of the motives increases, his/her intention to start-up a business will also increase but, take into consideration that there are other factors that may significantly affect this relationship.

Based upon these findings, the researcher decided to partially accept the null hypothesis which proposed that, (There is no significant relationship between the exogenous factors (business opportunities, barriers, and motives) that perform the students' perception toward entrepreneurship and their intention to start-up their own business after graduation inside universities under investigation, taken separately) "accept only the perception of business opportunities part" and partially reject the alternative one "reject the parts of perception of motives and the perceived barriers".

From the above illustrations regarding the study hypothesis, the researcher can, in turn, answer the research questions which asks about: -

- The reasons behind some university students' decision to pursue entrepreneurial activities.
- The way that university students perceive entrepreneurship.
- The key factors influencing students' intent to create a new venture.
- The relationship between the student's perception toward entrepreneurship and his/her intention to start-up their own business after graduation.

The results of our study are in agreement with many researchers regarding the perceived barriers (e.g., Pruet et al., 2009; Malebana, 2015; Kebaili et al., 2017; Sitaridis & Fotis 2017; Thanh et al., 2020; Hoogendoorn et al., 2019) who supported the proposition that barriers explain a substantial percentage of the variation in the behaviour. The perceived barriers have a negative impact on students' entrepreneurial intentions. Also, that the students' entrepreneurial attitudes and intentions are negatively influenced by the perceived barriers.

Regarding the perception of business opportunity, our results are consistent with Hui-Chen et al., 2014 study that examined the effects of MOA (motivation-opportunity-ability) on the entrepreneurial intention the results indicated that the effects of opportunity on personal attitude, subjective norms, and perceived behavioural control were not supported.

On the other hand, this result is in disagreement with the studies which argued that opportunity recognition has to be a key aspect of the entrepreneurial process, like Liñán et al. (2011) study which proposed that people's perceptions of entrepreneurial opportunities are important factors in explaining their entrepreneurial intentions throughout the countries.

Regarding the perception of motives, our results are consistent with Kim-Soon et al. (2014), and Aziz et al. (2013) their study demonstrated that the strength of motivation in choosing entrepreneurship as a career option among the students is related to entrepreneurship intention. According to statistics, the strength of students' entrepreneurial motivation and intention is significantly and positively associated.

Recommendations

The current study has revealed a number of implications in practices as well as future research opportunities. Based upon the findings of the study, this section provides recommendations for both universities' practice and future research.

a. Recommendations for practice

The following recommendations can be offered to educational organizations and the government: -

- The study recommends that the universities could establish centers for entrepreneurial development that will serve as a platform where students who have the intention to start-up a business after graduation can start expressing their intentions.
- Educational managers should provide training courses on entrepreneurial skills and knowledge for university students.
- Higher education can make an impact by offering educational opportunities for students in the area of entrepreneurship.
- New courses on entrepreneurship should be introduced in the Egyptian universities, to enhance the students' perception toward entrepreneurship and therefore encourage them to be entrepreneurial oriented.
- Entrepreneur guest speakers can be invited by the universities' training centers to engage in question-and-answer sessions, explain their success stories, and share their experiences. Guest speakers can give real-life examples of how small firms are established and operated, providing students a greater understanding of the "real world" of entrepreneurship obstacles and possibilities that entrepreneurs may face.
- As the results of this study supported the negative relationship between the students' intention to start-up an entrepreneurial venture and their perception of the business barriers, the government should have appropriate policies to encourage these entrepreneurial ventures.

- Parents, friends, and the close relatives of these students should provide the necessary supports for them. This will help the nation to reduce its unemployment and crime rate.

b. Recommendations for Future Research

- The impact of educational background on entrepreneurial attitude and intention was not considered in this study. According to previous research by [Misoska et al. \(2016\)](#), entrepreneurial courses are essential contextual elements in the educational system that may affect the students' thinking about future career options, resulting in different attitudes and intentions. As a result, future studies may examine the impact of entrepreneurial education on attitudes and intentions among individuals from various educational backgrounds, which might assist the entrepreneurial educational system in developing its curriculum and policy.
- Additional work is needed to investigate how entrepreneurs with educational experiences are translating these strengths into practice.
- Understanding motivational factors can be helpful for entrepreneurs and their businesses because it could increase the percentage of successful businesses so, future studies which explore these factors in detail will be helpful.
- Since this study failed to find significant support for the effect of gender as an endogenous factor forming the students' perception of entrepreneurship on their entrepreneurial intention, future research should continue to investigate this relationship.
- Since this study also failed to find a significant relationship between the effect of the business opportunity as an exogenous factor forming the students' perception of entrepreneurship and their entrepreneurial intention, future research should continue to investigate this relationship.
- Future research may probably consider testing the effect of other variables that may mediate the relationship between entrepreneurial perception and intention.

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Appendix

Questionnaire

You are asked to participate in completing a questionnaire that will take approximately about 15 minutes related to a research study titled “**The Entrepreneurial Perception and Intention of the Egyptian Universities Students**”. The study is being conducted with the approval of the Business Administration Department, Faculty of Commerce, Menoufia University.

We’d be honoured if you agree to participate. Your response is very important to the success of this study. Responses will be confidential and used only for this research purpose. The results will be collectively reported without references to a specific person or university.

To sum up this is a short survey about your perception and intention to start-up your own business. In each section of the questionnaire, you will be given specific instructions. Some of the questions may seem repetitive. This is not to test you; rather, it is a method that researchers used to measure opinions more effectively. Please carefully answer each question.

If you need any further information about the research, please feel free to contact me at marwa_younis@ymail.com. Many thanks for your assistance and cooperation,

Section I

Following are questions related to your perception toward entrepreneurship regarding self-efficiency, recognition of business opportunities, barriers, and motives. please circle the number for the most appropriate answer that is applied to you concerning each question from the following:

(a) General Self-Efficacy Scale (GSE)

Indicate the extent to which each of the following statements applies to you, for each item there is a five-choice response from 1 “Exactly true” to 5 “Not at all true”.

	1	2	3	4	5
I can always manage to solve difficult problems if I try hard enough.					
If someone opposes me, I can find the means and ways to get what I want.					
It is easy for me to stick to my aims and accomplish my goals.					
I am confident that I could deal efficiently with unexpected events.					
Thanks to my resourcefulness, I know how to handle unforeseen situations.					
I can solve most problems if I invest the necessary effort.					
I can remain calm when facing difficulties because I can rely on my coping abilities.					
When I am confronted with a problem, I can usually find several solutions.					
If I am in trouble, I can usually think of a solution.					
I can usually handle whatever comes my way.					

(b) Perception of barriers

To what extent do you agree with the following statements regarding the degree to which you feel supported or hampered by the infrastructure when starting your business. Value them from 1 (total agreement) to 5 (total disagreement).

	1	2	3	4	5
Banks do not readily give credit to start-up companies.					
Rules and regulations are averse to running a company.					
It is hard to find a business idea for new businesses.					

(c) Perception of opportunities

Indicate the extent to which each of the following statement applies to you. Value them from 1 (total agreement) to 5 (total disagreement).

	1	2	3	4	5
You have a strong ability to discover opportunities.					
The products you discover are leading.					
The products you discover is difficult to have substitutes in the short term.					

(d) Perception of motives

To what extent do you agree with the following statements regarding the reasons of why you want to start-up your own business. Value them from 1 (total agreement) to 5 (total disagreement).

	1	2	3	4	5
➤ Finance Motive: -					
My reason to be an entrepreneur is to earn more money.					
I want to own or run a business because it leads to larger financial opportunities.					
I want to be an entrepreneur to become wealthy.					
Being an entrepreneur is likely to result in my financial security.					
➤ Recognition Motive: -					
Being an entrepreneur will allow me to achieve my goals.					
I can achieve greater results by being an entrepreneur.					
I can better reach my potential by being an entrepreneur.					
Being an entrepreneur will allow me to challenge myself.					
Being an entrepreneur will allow me to make a greater contribution to society.					
➤ Freedom Motive: -					
Being an entrepreneur will allow me greater freedom.					
Entrepreneurship will allow me greater control my own destiny.					
Entrepreneurship gives me greater flexibility in my work.					
Entrepreneurship provides me a better opportunity to be my own boss.					
➤ Family Tradition Motive: -					
Running my own business will help me to keep family traditions.					
Entrepreneurship will help me keep a business within my family.					
Running a business gives me a better chance to be like my other family members.					
Entrepreneurship will allow me to keep up my family's traditions.					
➤ Economic Conditions: -					
Economic conditions support entrepreneurship where I live.					

Taxation in my country supports entrepreneurship.					
Money is reasonably accessible in my country to start and run a business.					
Material costs are reasonable in my country.					
Credit policies and rates are reasonable where I live.					
➤ Marketing Opportunity: -					
Entrepreneurs have the opportunity to offer new products and services to markets.					
By being an entrepreneur, I can decide my products/services prices.					
Running a business would give me a chance to sell my products wherever I want.					
➤ Governance: -					
Business laws and regulations support entrepreneurship.					
Corruption is a barrier to my running a business.					
My government's policies help me run a business.					
Bureaucracy is a barrier to entrepreneurship where I live.					
My government encourages entrepreneurship.					

Please circle the number that indicates the extent to which you agree or disagree with each statement as an accurate description of your intention to start-up your own business through your personal attitude, subjective norms, and perceived behaviour control.

Personal Attitude

Indicate your level of agreement with the following sentences from 1 (total agreement) to 5 (total disagreement).

	1	2	3	4	5
Being an entrepreneur implies more advantages than disadvantages to me.					
A career as an entrepreneur is attractive for me.					
If I had the opportunity and resources, I'd like to start a firm.					
Being an entrepreneur would entail great satisfaction for me.					
Among various options, I would rather be an entrepreneur.					

Subjective Norm

If you decided to create a firm, would people in your close environment approve of that decision? Indicate from 1 (total approval) to 5 (total disapproval).

	1	2	3	4	5
Your close family.					
Your friends.					
Your colleagues.					

Perceived Behavioral Control

To what extent do you agree with the following statements regarding your entrepreneurial capacity? Value them from 1 (total agreement) to 5 (total disagreement).

	1	2	3	4	5
To start a firm and keep it working would be easy for me.					
I am prepared to start a viable firm.					
I can control the creation process of a new firm.					
I know the necessary practical details to start a firm.					
I know how to develop an entrepreneurial project.					
If I tried to start a firm, I would have a high probability of succeeding.					

Entrepreneurial Intention

Indicate your level of agreement with the following statements from 1 (total agreement) to 5 (total disagreement).

	1	2	3	4	5
I am ready to do anything to be an entrepreneur.					
My professional goal is to become an entrepreneur.					
I will make every effort to start and run my own firm.					
I am determined to create a firm in the future.					
I have very seriously thought of starting a firm.					
I have the firm intention to start a firm someday.					

Section III

Please answer the following questions about yourself: -

1. Concerning your gender – (please tick one)?
[1] Male.
[2] Female.
2. I am studying: – (please tick one)?
[1] Business.
[2] Accounting.
[3] Economics.
[4] Other.
3. I am studying at: – (please tick one)?
[1] Private University.
[2] Public University.
4. Have your parents ever started a business? (Please tick one)
[1] Yes.
[2] No.
5. Has anyone else you know started a business? (Please tick one)
[1] Yes.
[2] No.
6. Have you ever started a business? (Please tick one)
[1] Yes.
[2] No.