

## The Impact of Entrepreneurship Education on the Construction of Entrepreneurial Self-identity of University Students in Egypt

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### ABSTRACT

*Due to the rise in the number of entrepreneurship education programs that are believed to have an impact beyond creating entrepreneurial knowledge and the multiple attempts to understand the entrepreneurial identity and how it is constructed, the current research aims at investigating the relationship between entrepreneurship education and entrepreneurial self-identity construction for university level-students, hence utilized two measures, the first one asked students whether they define him or herself in an entrepreneurial role or not (Hoang and Gimeno, 2015) and the second one was concerned about the social identity and measured it using the "Identity-scale" developed by Sieger et al. (2016). A self-administered questionnaire was distributed to a sample of 550 students, whereas 280 received formal entrepreneurship education and 270 did not. Results showed that entrepreneurship education had a direct impact on the construction of entrepreneurial identities of university students. However, the impact was of a very low level not exceeding 3.1%, implying the existence of other non-entrepreneurship education-related factors that might contribute to entrepreneurial identity construction to a higher extent.*

**Keywords:** Entrepreneurial Identity, Entrepreneurship Education, Missionary Identity, Darwinian Identity, Communitarian Identity

### Introduction

Over the last years, entrepreneurship has been recognized as a driver of economic growth and development and a practical solution for developing countries to prosper (Acs and Virgill, 2010; Kritikos, 2014, Lima et al., 2015; Dana, 2000). This importance of entrepreneurship and its widespread impact motivated researchers to study the actor. One of the questions posed was "who is an entrepreneur?". This question that has been considered to be worth asking and answering (Carland, Hoy, and Carland, 1988) implies that only special people can be entrepreneurs (Fletcher, 2006), who, according to entrepreneurship literature, are having an enabling entrepreneurial identity before start their businesses up (Down & Reveley, 2004; Murnieks & Mosakowski, 2006).

Entrepreneurial identity (including its formation and upkeep) has recently become an area of focus among entrepreneurship scholars (Crosina, 2018). Barrett and Vershinina (2017) state 'entrepreneurs, likely an individual, actively construct their identity through what is and is not available to them (i.e. capitals) and what is and is not possible or can be done in the context in which the operation (i.e. habitus)' (p 440). According to (Hall and Du Guy, 1996; Kreiner et al., 2006; Kašperová & Kitching, 2014); the identity is not an innate but dynamic process that has an impact on and is impacted and

changes based on other identities and behaviors as well as the context and environment in which it is situated and individuals' social interactions.

The terminology "entrepreneurial identity" has been linked to the founders of businesses who operate in markets and express entrepreneurial behaviors and actions to conduct business practices (Lindstrom, 2016; Donnellon, Ollila, and Middleton, 2014). The development of an entrepreneurial identity is fundamentally perceived to have an exclusive relationship with an individual's biography (Gauthier, 2016), internal self-reflection, and social engagement in form of action and talk (Watson, 2009). According to Obrecht (2011) and Watson (2009), both intrinsic and extrinsic factors with varying extents are included in the process of entrepreneurial identity creation. Entrepreneurial identity was argued to be constructed because of individuals' socialization process (Falck, Heblich, and Luedemann, 2012). Donnellon et al., (2014) argued that the construction of entrepreneurial identity can potentially be evolved and facilitated through the utilization of an action-oriented entrepreneurship education methodology. However, research integrating the two concepts of entrepreneurship education and entrepreneurial identity is limited to the process of entrepreneurial identity construction for nascent entrepreneurs (Middleton et al., 2012, Nabi et al, 2017). According to (Kašperová & Kitching, 2014),



the factors hindering the process of fully comprehending and addressing entrepreneurial identity and accordingly, impacting the usage of entrepreneurship education methodologies are: firstly, most of the literature places emphasis on an interview/researcher methodology regarding interaction failing to focus on the practical investigation; secondly, the existent literature deals with entrepreneurs as a homogenous group of people sharing the same capabilities and set of properties instead of perceiving entrepreneurs as agents that are uniquely formed and embodied; and lastly, the general stereotypical assumption within the existent literature that entrepreneurs have equal capabilities in relevance to operating and starting new businesses.

Since programs of entrepreneurship education are booming on a global level, accordingly more courses, interventions, and initiatives are emerging not only at the university or postgraduate level but also at secondary and primary levels (Fayolle, 2013). Entrepreneurship education has generally proven increasing popularity in universities, schools, engineering and business schools, and educational institutions (Hattab, 2014). Stakeholders engaged in the process of entrepreneurship education including instructors and educators have expressed commitment in terms of emotional and intellectual investment in addition to passion. Thus, the number of entrepreneurship-related educational programs is increasing steadily despite the differences in programs' content, methodology, organizational structure, and pedagogy (Peterka et al., 2015). Moreover, it is believed that the education of entrepreneurship is one of the economic and developmental mechanisms of utmost importance worldwide (ibid).

An approach developed from the theory of identity states that group processes such as entrepreneurship educational classes may result in the construction and development of entrepreneurial identity (Celuch et al., 2017). On a global level, Newbery et al., (2018) reported that an initial negative entrepreneurship experience might inhibit the salience of an entrepreneurial identity subsequently lessening the possibility of an entrepreneurial career. Opposing the findings of Newberry et al., (2018), Brandle et al., (2018) contended that nascent entrepreneurs characterized by self-interested comprehension of entrepreneurship have higher capabilities of constructing an entrepreneurial identity in which entrepreneurial skills are gained and applied, and a defined mission to change the society. Donnellon et al., (2014) maintained that the construction of entrepreneurial identity can potentially be evolved and facilitated through the utilization of an action-oriented entrepreneurship education methodology. Subsequently, it was furtherly contended that, especially if the educational aim is the practice of entrepreneurship, the development of entrepreneurial competency requires critically entrepreneurial identity construction (Donnellon et al., 2014).

Since identity is believed to be a fundamental aspect of the experience of entrepreneurship on a deeper level than the one concerned with skills and knowledge. Therefore, an enhanced comprehension for transferring entrepreneurial learning through the examination of entrepreneurial identity's related perception might be of significant benefit and importance for

entrepreneurship educators (Celuch et al., 2017). Entrepreneurship education enables the creation of entrepreneurial identity by serving as an optimal identity workspace in which entrepreneurs-to-be might be taught and introduced to who they are allowing them to experimental multiple versions of their own identities (Harmeling, 2011). While a recent study argued that entrepreneurial intent was explained and linked explicitly to the attribute of self-efficacy highlighting the insignificance of the entrepreneurial identity aspect, indirectly eliminating the importance of establishing a well-regarded conceptualization of the relationship between entrepreneurship education and the construction of entrepreneurial identity (Gutierrez et al., 2018).

A conceptual framework describing entrepreneurial learning in the form of its triadic model was proposed with contextual learnings, social and personal emergence, and negotiated venture as its three core constituents, alongside the inclusion of eleven linked sub-components (Rae, 2005). Through the study's methodology, an interrelation was demonstrated between venture creations, entrepreneurial identity emergence, and learning as a partial aspect of entrepreneurship education. Another study by Zhang and Chun (2018) presented a process model addressing the construction of entrepreneurial identity, accordingly, three phases/steps in developing entrepreneurial identity were identified in sequential order to be: the exploration of the identity, building an entrepreneurial mindset, and narrative development.

According to (Zhang and Chun, 2018; Rae, 2005; Solesvik et al., 2013 and, Feder and Antonie, 2017), the literature addressing entrepreneurship education and entrepreneurial identity is limited in nature. While the existing theoretical work on both concepts is diversified, context-based, and concerned with the development of its practical implications, the research's originality and core value supported by the vagueness of the relationship argue that a vivid definition of the nature and extent of the impact of entrepreneurship education on the construction of entrepreneurial identity is of extreme vitality and necessity. The research argues that to achieve maximum effectiveness in the utilization of entrepreneurship education, it is essential to understand its impact on the construction of entrepreneurial identity.

In Egypt, there has been a significant upsurge in the level of awareness of promoting entrepreneurship (Mansour, Sedita, and Apa, 2018), and the importance of developing an enterprising culture. This was accompanied by recognizing the value added by entrepreneurship education programs. For example, the economic positive outcome resulting from utilizing such programs to tackle the unemployability, developing the quality of university graduates regardless of their tendency to start their own, etc.. Overall, entrepreneurship education in Egypt and other Arab countries has led to the development of entrepreneurship in practice (Faghieh and Zali, 2018), but it remains at levels less than in other regions. Moreover, entrepreneurship literature has investigated entrepreneurial identity construction within the context of organized training programs (Matlay, Hytti, and Heinonen, 2013; Donnellon, Ollila, and Middleton, 2014; Nielson and Gartner, 2018) but rarely tackled the university level. Thus, the current

research aims at investigating the impact of entrepreneurship education on constructing the entrepreneurial identity of university students in Egypt. Thus this research aims at answering the following question: “Is there a relationship between entrepreneurship education and the construction of entrepreneurial identity in the context of Egyptian university students?”

The article comprises a theoretical framework developed from the literature on entrepreneurial identity construction and entrepreneurship education. The methodology part describes the context, method, and the measure used to collect data, then followed by a discussion and conclusions part. The main theoretical contribution of this article is to the field of entrepreneurship education, especially in Egypt, where it remains underdeveloped, by investigating its impact beyond the common variables. As well, it attempts to fill the gap in our understanding of entrepreneurial identity construction among university students, which has practical implications. Practically, findings might lead provide some suggestions to resolve the unemployment problem among Egyptian youth by utilizing courses to surge up the number of self-employed graduates.

**Methodology**

The current research aims at exploring the impact of entrepreneurship education on the construction of the entrepreneurial identity of university students. To achieve this purpose, primary data has been collected using a Paper-and-Pencil Self-Administered questionnaire that was distributed to students at the end of the academic year. The questionnaire was divided into three parts; the first part aimed at collecting general info about the students (gender, faculty, if any of their family members is an entrepreneur, etc...). the second part was about entrepreneurship education. it was treated as a dichotomous variable that requires taking on only one of two possible outcomes

with regards to measurement or observation. Accordingly, it was measured using a close-ended Yes/No question which is "Have you received any form of entrepreneurship education whether formally or informally?"

The third part was about entrepreneurial identity construction. It was divided into two parts, the first part asked students a dichotomous question (yes or no), whether they define themselves or themselves in an entrepreneurial role or not, which is according to Hoang and Gimeno (2015) encompasses the construct of the identity and was utilized in the work of Chen, Wang, and Lu (2021).

The second part was concerned with the social identity and measured it using the “Identity-scale” developed by Sieger et al. 2016 (Figure 1) and utilized by other authors in different contexts, for example, Brändle et al., (2018); Sieger et al., (2018). Driven by the social identity theory (Brewer and Gardner, 1996), Darwinian, Communitarian, and Missionary were identified as the three typologies of entrepreneurial identities (Fauchart and Gruber, 2011) based on various comprehensions and meanings of self-concepts.

A Darwinian entrepreneurial identity places great emphasis and importance on the competition with rival businesses triggered and motivated by their economic self-interest (de la Cruz, Jover, and Gras, 2018). A Communitarian entrepreneurial identity perceives its newly established venture as a tool for assisting and is assisted by a certain community having a relationship that is beneficial on a mutual level (Fauchart and Gruber, 2011). A Missionary identity is motivated by the desire to advance a greater cause, and its fundamental goal is to act responsibly (de la Cruz, Jover, and Gras, 2018), owners with this typology identify with a social aim or cause and believe that a firm can be an agent of change in society (Alsos et al., 2016).

**Table 2**  
Overview of founder social identity types, dimensions, constructs, and initial items.

Founder social identity type	Social identity dimension	Construct/no./item	Item text		
Darwinian	Basic social motivation	Personal interest	I	<i>I will create my firm in order...</i>	
			A1	to make money and become rich.	
	Basis for self-evaluation	Being a competent professional	II	<i>As a firm founder, it will be very important to me...</i>	
			B1	to operate my firm on the basis of solid management practices.	
	Frame of reference	Competitors	III	B2	to have thoroughly analyzed the financial prospects of my business.
				C1	to have a strong focus on what my firm can achieve vis-à-vis the competition.
Communitarian	Basic social motivation	Mutual concern for the benefit of known others	IV	C2	to establish a strong competitive advantage and significantly outperform other firms in my domain.
				A3	<i>I will create my firm in order...</i>
	Basis for self-evaluation	Being true to similar others	V	A4	to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community).
				B3	to play a proactive role in shaping the activities of a group of people that I strongly identify with.
	Frame of reference	Similar others/specific social group	VI	B4	<i>As a firm founder, it will be very important to me...</i>
				C3	to provide a product/service that is useful to a group of people that I strongly identify with (e.g., friends, colleagues, club, community).
Missionary	Basic social motivation	Advancing a cause	VII	C4	to support and advance a group of people that I strongly identify with.
				A5	<i>I will create my firm in order...</i>
	Basis for self-evaluation	Contributing to make the world a better place	VIII	A6	to solve a societal problem that private businesses usually fail to address (e.g., social injustice, destruction of environment).
				B5	to play a proactive role in changing how the world operates.
	Frame of reference	Society at large	IX	B6	<i>As a firm founder, it will be very important to me...</i>
				C5	to be a highly responsible citizen of our world.
				C6	to make the world a "better place" (e.g., by pursuing social justice, protecting the environment).

Note: all items anchored at 1 = strongly disagree and 7 = strongly agree.

**Figure 1 Overview of Founder social identity types, dimensions, constructs and initial items**

Source: Sieger et al., 2016

The population of the current study comprised undergraduate level students in Egypt. It was divided into two groups: students at the British University in Egypt who have been exposed to entrepreneurship education programs throughout previous years, and students at the same university who never received an entrepreneurship course before. The sampling technique utilized was the non-probability convenience sampling resulting in a sample size of 550 students, divided almost equally between the two groups. Out of 410 surveys received back, 300 completed surveys were considered for analysis.

The collected data were analyzed using linear regression, correlation, and comparing means statistical techniques with the

assistance of the statistical package for social sciences (SPSS). Moreover, the computation of the sub-components of the entrepreneurial identity variable (Darwinian, Communitarian, and Missionary) was a result of the summation of the assigned questions addressing each identity of each respondent's scores.

**Findings and Discussion**

*Sample description*

As Table (1) shows, out of the 300 respondents, there were 147 males with a percentage of 49%, while 153 was the number of female respondents with a percentage of 51%.

**Table 1: what is your gender?**

	Frequency	Percent	Valid Percent
Male	147	49	49
Female	153	51	51
Total	300	100	100

Regarding whether any of the respondents' acquaintances (extended family members, neighbors, colleagues, etc..), parents, and/or friends own a business (Table 2), results showed that 19% of respondents have acquaintances who own businesses, while 38.3% of respondents identified their parents as the owners of an

independent private business. Moreover, 20% of students said that their friends own private businesses. While 22.7% of respondents stated that none of their family members, parents, and/or friends own a private independent business.

**Table 2: Does any of the following own a private business?**

	Frequency	Percent	Valid Percent
Acquaintances	57	19	19
Parents	115	38.3	38.3
Friends	60	20	20
None of the above	68	22.7	22.7
Total	300	100	100

According to the table (3), concerning whether students have received entrepreneurship education or not, results indicated that 57.3% of students were exposed to entrepreneurship

education, while 42.7% of students were not exposed to such type of education.

**Table 3: Have you received entrepreneurship education before?**

	Frequency	Percent	Valid Percent
No	128	42.7	42.7
Yes	172	57.3	57.3
Total	300	100	100

**Reliability and validity measures**

According to Bonett and Wright (2014), Cronbach's Alpha is one of the most known and utilized measures for reliability in the context of organizational and social sciences, thus it was calculated four times: testing the level of reliability regarding the set of questions addressing the Darwinian identity, the Communitarian identity, the Missionary identity, and the

entrepreneurial identity. According to Taber (2018),  $\geq 0.70$  is a threshold or cut-off as an acceptable, sufficient, or satisfactory level.

As shown in Table 4, Cronbach's alpha values for all the questions addressing identity were more than 0.7, which means all are at an acceptable level of reliability for the data collected to measure it.

**Table 4: Reliability Measures**

Type of Identity	Cronbach's Alpha	Cronbach's Alpha based on Standardized items	Number of items
Darwinian	0.74	0.741	6
Communitarian	0.796	0.798	6
Missionary	0.831	0.833	6
Self- identity	0.715	0.7	1

**Entrepreneurial identity**

According to Table (5), 82% of the students who participated in this study, irrespective of their faculties, defined

themselves in an entrepreneurial role which is according (Hoang and Gimeno, 2015) indicated that students believe that have an entrepreneurial identity.

**Table 5: Do you define yourself in an entrepreneurial role?**

	Frequency	Percent	Valid Percent
Yes	246	82	82
No	54	18	18
Total	300	100	100

With the use of the crosstabs procedure in SPSS, the researcher investigated if there are differences in self-perceptions between males and females. The results indicate that of those who said yes, more females than males believe that they have an

entrepreneurial identity, 54%, and 46%, respectively (Table 6). Within the same gender, the percentage of males who identified themselves in the entrepreneurial role is less than those who did not with 48% and 52%, respectively.

**Table 6: Gender \* Do you define yourself in an entrepreneurial role Crosstabulation**

	No	yes	Total
Females	57	87	144
Males	79	72	151
Total	136	159	295

**Correlation analysis**

As Table 7 shows, the significance level resulting from the correlation analysis between the Darwinian identity

and entrepreneurship education is 0.007 (which is <0.05) indicating a direct relationship between Darwinian identity and entrepreneurship education.

**Table 7: Darwinian entrepreneurial identity**

		Question 6	Darwinian
Q6	Pearson correlation	1	0.154"
	Sig. (2-tailed)		0.007
	N	300	300
Darwanian	Pearson correlation	0.154"	1
	Sig. (2-tailed)	0.007	
	N	300	300

"correlation is significant at the 0.01 level (2-tailed)

While Table 8 shows that the significance level resulting from the correlation analysis between the Communitarian identity

and entrepreneurship education is 0.000 (which is <0.05), indicating a direct relationship between the two variables.

**Table 8: Communitarian entrepreneurial identity**

		Question 6	Communitarian
Q6	Pearson correlation	1	0.218"
	Sig. (2-tailed)		0.000
	N	300	300
Communitarian	Pearson correlation	0.218"	1
	Sig. (2-tailed)	0.000	
	N	300	300

"correlation is significant at the 0.01 level (2-tailed)

However, Table 9 shows the inexistence of any relationship between Darwinian identity and entrepreneurship education, as the significance level resulting from the correlation

analysis between the Missionary identity and entrepreneurship education is 0.308 (which is >0.05) being insignificant.

**Table 9: Missionary entrepreneurial identity**

		Question 6	Missionary
Q6	Pearson correlation	1	0.059
	Sig. (2-tailed)		0.308
	N	300	300
Missionary	Pearson correlation	0.059	1
	Sig. (2-tailed)	0.308	
	N	300	300

"correlation is significant at the 0.01 level (2-tailed)

As Table 10 shows, the significance level resulting from the correlation analysis between the entrepreneurial identity and entrepreneurship education is 0.002 (which is  $<0.05$ ) being significant indicating the existence of a direct relationship between the two variables. A result that supports the findings of Rauch and Hulsink (2015) and Donnellon et al., (2014). With regards to determining the direction of the relationship, the

Pearson correlation score showing no negative signs means that the correlation is a positive one. Nevertheless, since,  $r=0.177$ , the nature of the relationship between the two variables is a weak one.

**Table 10: Entrepreneurial identity as a whole**

		Question 6	Entrepreneurial Identity
Q6	Pearson correlation	1	0.177"
	Sig. (2-tailed)		0.002
	N	300	300
Entrepreneurial Identity	Pearson correlation	0.177"	1
	Sig. (2-tailed)	0.002	
	N	300	300

" correlation is significant at the 0.01 level (2-tailed)

**Comparing means**

As illustrated in Table (11), the significance level with regards to the Levene’s Test for equality of variances is 0.265 (which is  $>0.05$ ), accordingly, the variances between the group of respondents who have studied entrepreneurship and the group that did not, are homogeneous. Nevertheless, by checking the Sig (2-tailed) in Table (12) with regards to the T-test for equality of Means, a level of significance appears indicating the existence of a significant difference between the group of people who were

exposed to entrepreneurship education and the group of people who were not with regards to the construction of their entrepreneurial identity. Results of this statistical analysis technique compliment the findings suggested earlier in the literature, asserting the existence of a causal relationship between being entrepreneurially educated and constructing one’s entrepreneurial identity (Rauch and Hulsink, 2015; Donnellon et al., 2014; Newbery et al., 2018; Celuch, 2017).

**Table 11: Group statistics**

	Question 7	N	Mean	Standard Deviation	Standard Error of mean
Entrepreneurial Identity	Yes	172	71.26	9.618	0.733
	No	128	67.61	10.706	0.946

**Table 12: Levene’s Test for equality of variances**

		F	Sig.
Entrepreneurial Identity	Equal Variances assumed	1.248	0.265
	Equal Variances not assumed		

**Table 13: T-test for equality of means**

t	df	Sig. (2-tailed)	Mean Difference	Std. error difference	95% confidence interval of the difference	
					Lower	Upper
3.099	298	0.002	3.652	1.179	1.333	5.972
3.051	256.611	0.003	3.652	1.197	1.295	6.010

**Conclusion, Recommendations, and Limitations**

The current study attempted to investigate the impact of entrepreneurship education programs on constructing the entrepreneurial identities of university students. Based on the data analysis, it was found that being exposed to entrepreneurship education directly impacts the construction of entrepreneurial identity, especially the Darwinian and Communitarian. However, the impact is not exclusively attributed to the exposure to

entrepreneurship education. Although significant levels resulting from data analysis support the existence of an impact, this impact remains at a low level, which Indicates the existence of non-entrepreneurship education-related factors that contribute to the construction of entrepreneurial identity, for example, having a family member or friend who has a private business. Gender has proven to have an impact on the construct of the identity, even if no entrepreneurship education was received.

The major limitation within this research is concerned with the fact that some factors other than entrepreneurship education that might be of an impact on the construction of entrepreneurial identity, were not properly addressed. Another limitation presents itself with regards to sampling, in which all respondents were students at the same university, hence it might not be the perfect representation of the whole population of private/public university students. This drawback was a result of the lack of resources availability and sufficient time. Moreover, the inability of the research to establish a clearly defined relationship between entrepreneurship education and each of the three types of entrepreneurial identity, as instead, the focus was solely directed to entrepreneurial identity as a whole and how is it impacted by entrepreneurship education.

The implications for future research include further recommended extensive research on the factors shaping entrepreneurial identity in addition to addressing the subject from various dimensions accounting for each one of the identities proposed in the literature. Additionally, research investigating factors contributing to the construction of entrepreneurial identity

excluding entrepreneurship education would be of substantial relevance and benefit with regards to the extension of knowledge for formulating a clear comprehensive overlook of what shapes and constructs entrepreneurial identity. Another aspect for potential future research is shifting the focus placed by researchers on the topic of entrepreneurship education solely, and instead, directing it towards defining the relationship between each of the Darwinian, Communitarian, and Missionary identities and entrepreneurship education.

On the other hand, a practical implication based on the results of the research is the importance of creating entrepreneurially empowered youth. In Egypt, youth between 18 and 29 years old represent almost 25% of the population and are ready to join the labor market. According to the International Labour Organization, the youth unemployment rate has declined over the past few years, but it remains at a challenging level. Entrepreneurship should be presented as an option for this dilemma. Entrepreneurship education can play an important role in creating and shaping the entrepreneurial identity of youth, hence proving an alternative and worthy career option.

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