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Factors affecting students' intentions toward green entrepreneurship in COVID-19 pandemic times: A case study of Egyptian universities

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ABSTRACT

The impact of government assistance, entrepreneurial self-efficacy, conceptual development support, and educational development support on green entrepreneurial aspirations through university curriculum during the COVID-19 epidemic is explored in this research. It is the first of its kind in Egypt and is based on a sample population of 502 undergraduate students from various faculties at five Egyptian universities (two public, two private, and one institution with international cooperation). It employs structural equation modelling via SmartPLS. This study can assist other Egyptian universities in creating strategic plans for environmental initiatives and ensuring that students are given the necessary skills to succeed. The study aims to evaluate the impact of conceptual development support offered by universities in terms of fostering interest and presenting novel ideas to students to start a new project, government support provided in terms of laws and programs to encourage entrepreneurship, development of university curriculum to promote entrepreneurial self-efficacy through regular courses, postgraduate practices, and networking with entrepreneurs. Academics, especially those in universities in Egypt or other Arab or African nations, as well as policymakers, can gain from this research's potential to build new standards to support green entrepreneurship and sustainable economies.

1. Introduction

Since December 2019, the world has changed dramatically due to the coronavirus disease-2019 (COVID-19), an infectious disease of pandemic proportions, with approximately 212 million cases and 4.4 million deaths worldwide by August 2021 [1]. In spite we don't have direct proof that climate change is driving the spread of COVID-19, but we do know that it affects how humans interact with other animals on the planet, which has implications for our health and infection risk. As the world warms, creatures large and little, on land and at sea, are flocking to the poles to escape the heat. This means animals are coming into contact with creatures they wouldn't ordinarily come into contact with, allowing viruses to infect new hosts [2]. The epidemic has negative effects at both the individual and collective levels; it has negatively affected health teams and individuals [3]–[6], including usual activities, such as education [7]. Further, there is evidence of its negative impact on the global economy [8] that resulted in promoting entrepreneurial activities to help tackle the crisis [9]. Simultaneously, efforts to adopt the United Nations Sustainable Development Goals (SDGs) are needed to address this harm [10]. In 1972, the world's universities had to enhance learning and develop activities focused on entrepreneurship [11].

They imparted the needed knowledge and skills for entrepreneurship to support their role of promoting business development, theoretical and practical academic training [12], which represent an added value to universities [13]. Many universities should develop specific programs to promote entrepreneurship, understand the factors that explain students' intentions regarding green entrepreneurship, assess how to promote entrepreneurship, and related events on campus. They also need to create linkages between startups and students for awareness and impart practical knowledge to enhance students' skills to start their own businesses. Governments must demonstrate their support for entrepreneurship and encourage students. Thus, various factors should be evaluated to understand the aspects that influence students' intentions toward environmental action. Several experiences on entrepreneurship education have been studied and analyzed at universities in different countries. For example, in Europe: [16]–[25], Asia, [26]–[31], Africa: [32]–[34], Australia [35], Canada [36], United States [37], South America [38], [39]. Regarding green entrepreneurship, a few studies came from Bosnia and Herzegovina [40], Japan [41], and the Netherlands [42]. Recently, some investigations have identified different variables that impact green entrepreneurial intentions in Egypt intending to clarify existing research in the domains of green entrepreneurship, education, psychology, and philosophy to provide some guidance [43].

The current study considers the Theory of Planned Behavior (TPB) to represent the theoretical basis for measuring the impact of contextual elements and self-efficacy on the implementation of green entrepreneurship. Fishbein and Agzen suggested that TPB explains the factors that describe people's intentions behind the factors described by self-efficacy [44]. Likewise, it considers intentions to be a strong predictor of behavior. State laws or policies regarding green entrepreneurial intentions should enhance the self-efficacy of developing entrepreneurial activities. The theory of rational action represented the beginning of TPB in 1980 and was used to predict an individual's intention to engage in a behavior at a specific time and place. The theory was intended to explain all behavior by which people can exercise self-control. The main component of this model is a behavioral intention. It is influenced by attitudes about the likelihood of the behavior to have an expected outcome and the subjective assessment of the risks and benefits of that outcome. TPB has been successfully used to predict and explain several health behavior and intentions, including smoking, drinking, use of health services, breastfeeding, and drug use. The TPB states that behavioral achievement depends on both motivation (intent) and ability (behavioral control). It distinguishes between three types of beliefs: behavioral, normative, and control. TPB consists of six structures that collectively represent a person's actual control over their behavior: attitudes, behavioral intentions subjective norms, social norms, perceived power, and perceived behavioral control. TPB has demonstrated greater benefit to public health than the health belief model which is a theoretical model that can be used to guide health promotion and disease prevention programs, but is still limited in its ability to account for environmental and economic influences [45].

Social Cognitive Theory developed by Bandura, emphasizes the belief that behavior under an individual's control can increase self-efficacy [46]. Thereby, developing the motivation to undertake entrepreneurial activities, educational support for green entrepreneurship, and formulation of laws and policies that facilitate undertaking it. Many investigations have been conducted to understand the variables associated with entrepreneurship that ultimately affect the intention to implement commitments at different levels and of different types, such as social or environmental entrepreneurship. Miller began studying these variables [47], then, Lumpkin and Dess established a general method that enables the conceptualization of entrepreneurial orientation to be an attitude toward decision-making that supports the performance of business activities [48]. Accordingly, the current research paradigm provides an assessment of different types of support in the educational ecosystem. Additionally, it influences the entrepreneurial self-efficacy of students at the governmental level to increase the desire to develop green enterprises, which is less common. This paper aims to evaluate the impact of conceptual development support offered by universities in terms of fostering interest and presenting innovative ideas to students to start a new project, government support provided in terms of laws and programs to encourage entrepreneurship, development of university curricula to promote entrepreneurial self-efficacy through regular courses, preprofessional practices and networking with entrepreneurs. Finally, the student's intent to implement green entrepreneurship is assessed through a variable called green entrepreneurship intent [14], [15].

2. Literature Review

2.1. Green Entrepreneurship

Many countries emphasized the central role of entrepreneurship in boosting business activities after the global economic crisis started in summer 2007, though the full impact was not felt till the bankruptcy of the investment bank [49]. Governments have often devised important recovery plans to help entrepreneurs, either in the form of loan guarantees, tax incentives, or research credit designed to boost innovation and systems that encourage self-employment. However, instead of being neutral in their industry targets, stimulus plans have often prioritized environmentally-friendly investments, like projects for improving green power, energy efficiency, water stocks, pollution control, waste reduction, and enhancing sustainable transport. Most of these priorities are not new but have been part of long-term commitments toward environmental protection, supporting smaller enterprises, and innovation. Within this complex economic context, many countries have increased public expenditure to revive growth, while also taking the opportunity to orientate national economies toward long-term sustainability and "green growth."

According to the United Nations Environmental Program UNEP, 2009, South Korea invested 79% of its total economic stimulus package in "green activities" in 2009, representing almost 7% of its growth domestic product (GDP) [49]. This was followed by China and Australia with 34% and 21% of their stimulus packages going to "green investments," which corresponded to 5.2% and 0.9% of their respective GDP. In this context, the study of green entrepreneurship underwent a transition from mere "fashion" to a definite choice to align with the global community on environment and sustainability principles. The Organization for Economic Cooperation and Development (OECD) has been assisting efforts to foster green growth and guide relevant policy initiatives based on statistical evidence. The following sections present the existing definitions for green entrepreneurship, work done in quantifying its dynamics, and key findings across several countries based on the existing OECD data for a selection of green sectors.

2.2. Concept of Green Entrepreneurship and Definition

The interest in green entrepreneurship is not only reflected in the growing literature on the topic but also in the proliferation of terms used to identify the concept itself. Green entrepreneurship is still in its infancy stage in the research field. For instance, Pachecho et al. observed some issues from related fields, such as business economics, entrepreneurship, finance and accounting, which are yet unresolved [50]. However, O'Neill and Gibbs posited that entrepreneurs face problems in determining what undertakings constitute green entrepreneurship [51]. For instance, the Green Project defined green entrepreneurship to be activities that address environmental/social problems/needs through the implementation of entrepreneurial ideas amid high risks and expectation of net-positive impact on the environment and financial sustainability [52]. The Green Project also described a green entrepreneur to be the individual who starts and runs an entrepreneurial venture aiming to make processes and products green. Moreover, Sunny and Shu suggested that green entrepreneurship should be defined in terms of the adopted technological line of production or firm's activities [53].

Considering the premature stage of green entrepreneurship to date, scholars have not reached a consensus on a universally acceptable definition, according to Hwang et al. [54]. Green entrepreneurship has also been defined to be a macrolevel business activity, closely linked to the general business cycle, which opposes the performance of an individual business sector. According to Buck Consultants (2011), 60% of businesses today are measuring efficiency through green programs, out of which 78% achieve power efficiency [55]. Additionally, two-thirds indicate heating/cooling and paper savings, whereas 60% are cutting costs on water consumption. Hence, overall, approximately 69% of the respondents indicated that they are already exploring and implementing green impact, which is rising compared to their previous endeavors. In support of this, Khan opined that the only strategic solution to the problem of sustainability is for entrepreneurs to establish their businesses and rely on "go green" for prosperity and long-term survival [56]. The most commonly used terms that describe green entrepreneurship are ecoentrepreneurship, environmental entrepreneurship, sustainable entrepreneurship, and ecological entrepreneurship.

2.3. Green Entrepreneurial Intention

An individual's intention is the stage that creates decisions and interests to conduct a specific action. Various factors influence the intent to act and directly influence the behavior. These factors can show how the person plans to conduct the associated behavior according to TPB [57]. The intent to perform the behavior precedes the behavior. Entrepreneurship is a concept that applies to both

individuals and companies [58]. Green entrepreneurship involves additional concepts. Thus, we have the definition proposed by Farinelli, which states that green entrepreneurship implements innovations related to sustainability, with an emphasis on promoting a green economy among customers [59]. Despite the intent of green entrepreneurship, entrepreneurs have trouble deciding whether a project is environmentally friendly or not. Therefore, these undertakings are selected from research results to make it easier for them to understand. Thus, we can say that green entrepreneurship involves addressing environmental issues and having a positive impact, such as the use of environmentally-friendly inputs, clean manufacturing processes, waste management, and recycling. In other words, environmental entrepreneurship extends beyond just environmental protection; it includes approval of suppliers, procurement of materials, and clean processes. These definitions, however, will likely remain the subject of further research and discussion. In this study, we focus on the intent to develop green entrepreneurship by university students.

3. Research Methodology

We have taken a mixed design research approach, with exploratory study and descriptive research to identify and describe the factors that can explain the intention of green entrepreneurship. A questionnaire online was developed for the collection of data using the Google survey tool.

3.1. Sampling and Data Collection

We used a systematic probability sample through the students in Egyptian universities of Cairo University Cu, Ain Shams University Ain U, Misr International University MIU, and Ahram Canadian University ACU, and an educational institution with an international agreement (American University at Cairo AUC). These Egyptian universities were chosen the best within the Middle East and Africa for being among the best universities in applying green entrepreneurship. The data collection questionnaire was distributed to university students. For ethical purposes, questionnaires were provided to students who agreed to participate after reading the statement: "Your participation is voluntary; therefore, the information obtained will be confidential and will only be used for research purposes." The questionnaire has two sections. The first section collects sociodemographic data of the university students and the second measures their opinion on five variables of education development support [60], conceptual development support [61], governemental support (current authors), entrepreneurial self-efficacy [62], and green entrepreneurial intention [61], [63], [64]. The scale of education development support consists of six, conceptual development support four, education support five, government support three, entrepreneurial self-efficacy four, university curricula six, and entrepreneurial intention eight parameters (Appendix 1). These variables are measured using a 5-point Likert-type scale: (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

The sample size of 502 used for this study was based on the ratio of the number of students to the actual population in each of these Egyptian universities. Students filled out quantitative questionnaires at five Egyptian universities, including seven colleges (as described in Table 2), from a systematic sample with a significance level of ±5% and 95% confidence level [65]–[69]. A partial least squares in structural equation modeling (PLS–SEM) was applied to the sample data because they do not have a normal distribution with complex inter-relationships between observed and latent variables, and require flexibility for a nonparametric analysis at an explanatory level of study. PLS–SEM delivers explanatory significance (R^2) indicating the significance of relationships between the constructs to demonstrate how well the model is performing. The internal consistency of each subscale was analyzed using Cronbach's alpha reliability coefficient, construct and discriminant validity, and internal consistency through composite reliability [67]. The reliability of each indicator was evaluated by measuring the indicator's loads and their dimensions. The average extracted variance was used to analyze the fit of the model. Additionally, the Fornell–Larcker criterion [70], [71] was used to evaluate the discriminant validity.

3.2. Research Model and Hypotheses

We designed the proposed model to investigate the four factors that can explain green entrepreneurship intention through university curricula representing the mediator of the relationship within the period of the COVID-19 pandemic, as depicted in the following Figure 1. According to the proposed model, we can express the hypotheses as follows;

H_{a1} : There is a positive impact of conceptual support on green entrepreneurial intentions

|		
H_{a2}	:	There is a positive impact of educational support on green entrepreneurial intentions
H_{a3}	:	There is a positive impact of government support on green entrepreneurial intentions
H_{a4}	:	There is a positive impact of entrepreneurial self-efficacy on green entrepreneurial intentions
H_{b1}	:	There is a positive impact of conceptual support on university curricula
H_{b2}	:	There is a positive impact of educational support on university curricula
H_{b3}	:	There is a positive impact of government support on university curricula
H_{b4}	:	There is a positive impact of entrepreneurial self-efficacy on university curricula
H_c	:	There is a positive impact of university curricula on green entrepreneurial intentions
H_{d1}	:	There is an indirect positive effect of conceptual support on green entrepreneurial intentions through university curricula
H_{d2}	:	There is an indirect positive effect of educational support on green entrepreneurial intentions through university curricula
H_{d3}	:	There is an indirect positive effect of government support on green entrepreneurial intentions through university curricula
H_{d4}	:	There is an indirect positive effect of entrepreneurial self-efficacy on green entrepreneurial intentions through university curricula
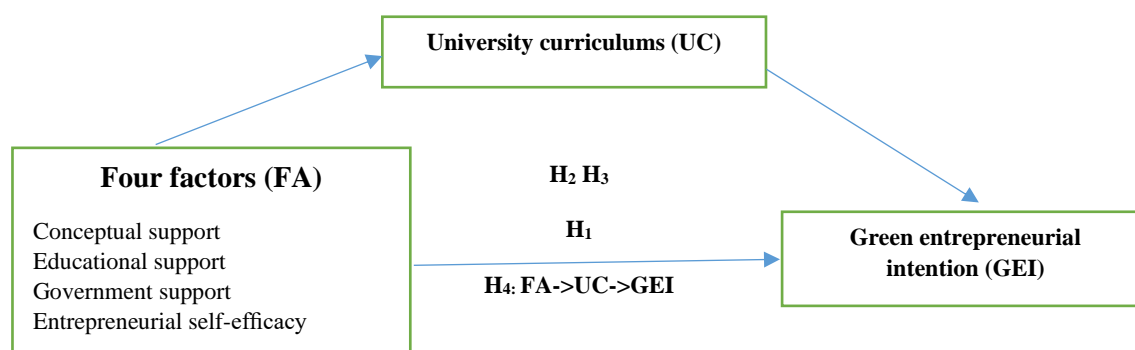
Fig. 1. Proposed Model

4. Results and Discussion

According to the Table 1, most of the respondents are within the age bracket of less than or equal to 21 years, with 75.5% compared to 24.5% being more than 21 years. Moreover, the percentage of male and female students is fairly close (male: 51%; female: 49%). The majority of the students (71.5%) are from Cairo University compared to other universities (Ain Shams: 11.6%; MIS: 7.6%; AUC: 6.4%; ACU: 3%).

Table 1. Sample Description

	Description	Frequency	Percentage (%)
Age	Less than or equal to 21	379	75.5
	More than 21	123	24.5
Gender	Male	256	51.0
	Female	246	49.0
University	Cairo University	359	71.5
	Ain Shams University	58	11.6
	Misr International University MIU	38	7.6
	American University in Cairo	32	6.4
	Al Ahram Canadian University	15	3.0
College	Faculty of Commerce	310	61.8
	Faculty of Arts	20	4.0
	Faculty of Law	58	11.6
	Faculty of Mass Communication	4	.8

	Description	Frequency	Percentage (%)
	Faculty of Engineering	7	1.4
	Faculty of Computer and Information Sciences	28	5.6
	Faculty of Physical Therapy	75	14.9
Level of study	Year 1	154	30.7
	Year 2	139	27.7
	Year 3	73	14.5
	Year 4	136	27.1
N		502	100%

The majority of the colleges are from the Faculty of Commerce (61.8%), followed by the Faculty of Physical Therapy (14.9%), and the rest are from faculties of Law: 11%; Mass Communication: 8%; Computer and Information Sciences: 5.6%; Arts: 4%; and Engineering:1.4%. Most of the students are fresher or in the second-year level (57%), of which, year 1 accounts for 30.7% and year 2 accounts for 27.7%, and the rest are from later levels, where year 3 accounts for 14.5% and year 4 accounts for 27.1%. Table 2 shows that the mean ranges between 2.89 and 3.97. Moreover, the standard deviation ranges between 1.208 and 1.503, and the variances are also low. Kline argued that there is no series problem for SEM if the skewness and kurtosis of each item range between ±3 and ±10, respectively [72].

Table 2. Descriptive Statistics

Construct	Measurement items	Mean	Std. dev.	Variance	Skewness	Kurtosis
Educational support	ES1	3.74	1.282	1.643	−0.703	−0.585
	ES2	3.97	1.250	1.562	−0.891	−0.315
	ES3	3.94	1.293	1.671	−0.809	−0.670
	ES4	3.58	1.364	1.862	−0.451	−1.010
	ES5	3.82	1.220	1.487	−0.559	−0.742
Conceptual support	CS1	3.83	1.205	1.452	−0.477	−0.662
	CS2	3.65	1.360	1.850	−0.667	−0.804
	CS3	3.77	1.227	1.504	−0.597	−0.718
	CS4	3.70	1.335	1.781	−0.744	−0.552
Government support	GS1	3.18	1.379	1.901	−0.021	−1.236
	GS2	3.33	1.253	1.571	−0.009	−1.234
	GS3	2.89	1.430	2.046	0.259	−1.260
Entrepreneurial self-efficacy	ESE1	3.67	1.208	1.459	−0.747	−0.141
	ESE2	3.22	1.231	1.515	−0.061	−0.814
	ESE3	3.13	1.315	1.729	−0.036	−0.933
	ESE4	3.19	1.421	2.019	−0.169	−1.224
University curriculas	UCMS1	2.98	1.503	2.259	0.009	−1.378
	UCSG2	3.50	1.364	1.859	−0.468	−0.958
	UCPG3	3.41	1.420	2.016	−0.477	−1.022
	UCPM4	3.65	1.354	1.834	−0.596	−0.855
	UCMA5	3.56	1.337	1.788	−0.294	−1.343
	UCTR6	3.20	1.485	2.205	−0.165	−1.336
Green entrepreneurial intention	GEI1	3.61	1.285	1.651	−0.391	−1.148
	GEI2	3.57	1.263	1.595	−0.534	−0.579
	GEI3	3.30	1.308	1.712	−0.172	−0.988
	GEI4	3.39	1.254	1.573	−0.021	−1.169
	GEI5	3.27	1.343	1.805	−0.228	−1.050
	GEI6	3.08	1.378	1.900	0.284	−1.377
	GEI7	3.67	1.424	2.027	−0.599	−0.998
	GEI8	3.36	1.382	1.911	−0.357	−1.105
N		502				

4.1. Confirmatory Factor Analysis

1) Convergent Validity

Table 3 indicates that the Rho A and CR values are all greater than 0.7, which confirms the high internal consistency between the expression of these dimensions, while AVE of mostly greater than 0.5 indicates convergence between the components of the latent variables [73].

Table 3. Convergent Validity and Reliability

Construct	Reliability		Validity	
	Cronbach's alpha	*Rho A*	*Composite reliability*	*Average variance extracted*
Educational support	0.770	0.766	0.830	0.497
Conceptual support	0.836	0.857	0.893	0.679
Entrepreneurial self-efficacy	0.849	0.918	0.895	0.683
Government support	0.649	0.782	0.790	0.575
University curricula	0.909	0.908	0.931	0.694
Green entrepreneurial intention	0.902	0.908	0.922	0.598

2) Discriminant Validity

The authors used two standards to explore discriminant validity: Fornell–Larker & Hetrotrait–Monotrait ratio (HTMT). Table.4 indicates that this model is supported by discriminant validity because the square root of the average variance extracted (AVE) for each variable is greater than its relationship to the other variables in the model.

Table 4. Fornell–Larcker Criterion

Fornell–Larcker	Conceptual	Educational	Self-efficacy	Government	Green entrepreneurial intention	University curricula
Conceptual support	0.824					
Educational support	0.736	0.705				
Entrepreneurial self-efficacy	0.504	0.342	0.826			
Government support	0.599	0.496	0.559	0.758		
Green entrepreneurial intention	0.687	0.515	0.658	0.751	0.773	
University curricula	0.583	0.350	0.546	0.585	0.708	0.833

Table.5 refers to all HTMT values that are less than 0.9; hence, this model has discriminant validity for all constructs or latent variables [74].

Table 5. Heterotrait–Monotrait Ratio

Heterotrait–monotrait ratio	Conceptual	Educational	Self-efficacy	Government support	Green entrepreneurial intention	University curricula
Conceptual support	No Results					
Educational support	0.870					
Entrepreneurial self-efficacy	0.608	0.494				
Government support	0.704	0.643	0.721	0.678		
Green entrepreneurial intention	0.793	0.549	0.707	0.896		
University curricula	0.660	0.388	0.563	0.678	0.890	

Based on the Figure.2, the proposed measurement model for research variables has a good degree of reliability and validity and hence, can be relied upon in determining and evaluating the structural model and testing hypotheses.
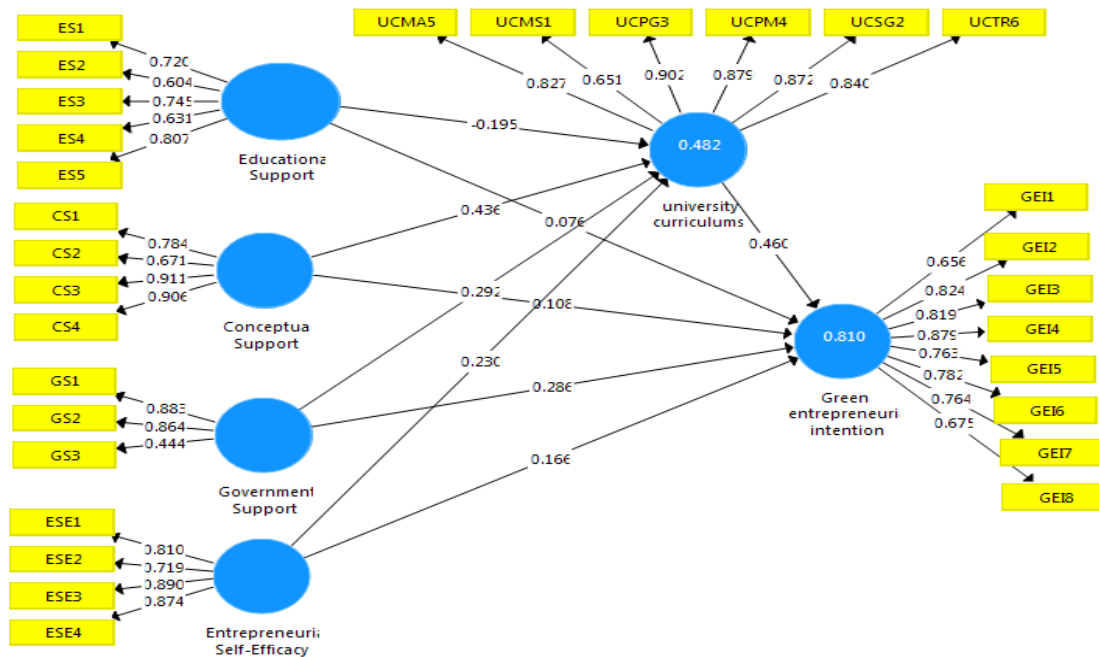

Fig. 2. Measurement Model

3) Path Analysis and Testing Hypotheses

According to the structural model (Figure 3), the authors find that 81% of green entrepreneurship intentions were explained by the four factors; however, these factors explain only 48.2% of the university curricula.
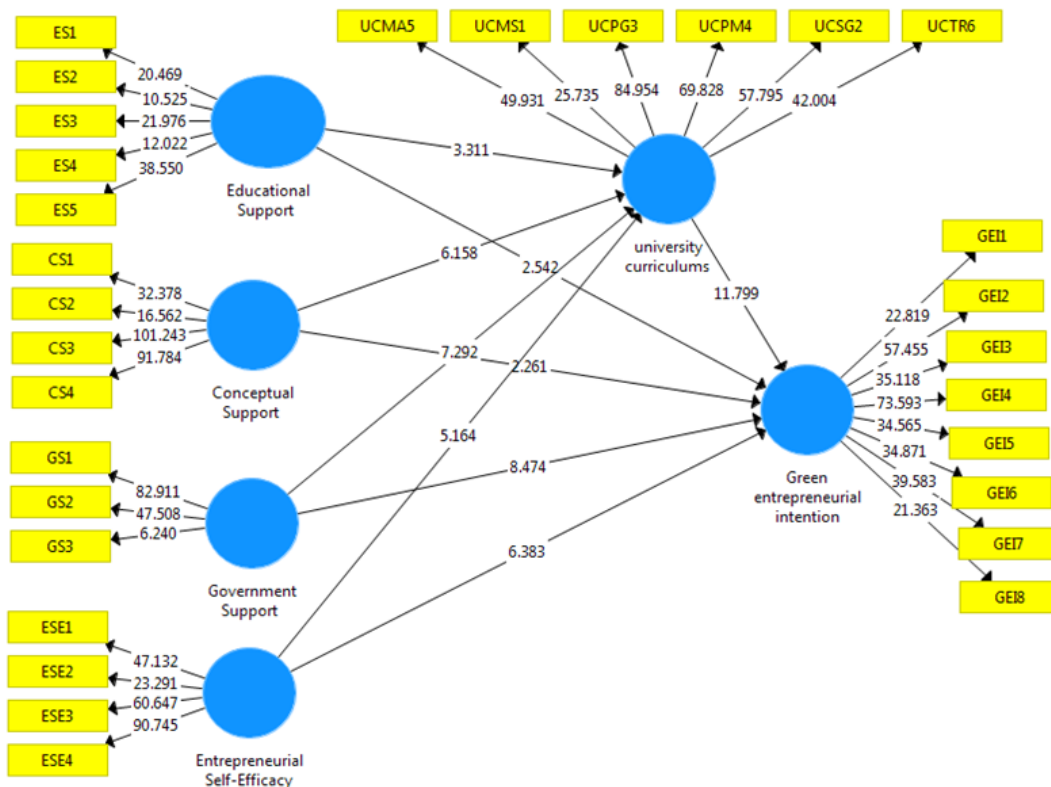
Fig. 3. Structural Model

Table 6. R Square

	R square	R square adjusted
Green entrepreneurial intention	0.810	0.808
University curricula	0.482	0.478

Table 7, indicates hypothesis tests using the structural model via Smart PLS software to investigate the effect of four factors of green entrepreneurship (Conceptual, Education, Government, and Entrepreneurial self-efficacy) on green entrepreneurial intention (GEI) in COVID-19 pandemic times through the mediating role of university curricula (CU). Results indicated nine direct effect and four indirect effect (CS > UC > GEI, ES > UC > GEI, GS > UC > GEI and ESE > UC > GEI) relationships through the structural model. According to VIF levels, we find that it is less than 3 but not below 0.2, which supports the absence of multicollinearity issue in this model [70]. For an explanation of R Square can be seen in Table 6.

Table 7. Nine Direct and Four Mediating Relationships Tested via the Structural Model

Hypotheses tests Direct effects						
		Variance Inflation Factor	β	T-value	P-value	Conclusion
H_{a1}	CS > GEI	2.142	0.108	2.261	0.024	Supported*
H_{a2}	ES > GEI	2.301	0.076	2.542	0.011	Supported**
H_{a3}	GS > GEI	2.005	0.286	8.474	0.000	Supported***
H_{a4}	ESE > GEI	1.672	0.166	6.383	0.000	Supported***
H_{b1}	CS > UC	2.775	0.436	6.158	0.000	Supported***
H_{b2}	ES > UC	2.228	−0.195	3.311	0.001	Supported***
H_{b3}	GS > UC	1.841	0.292	7.292	0.000	Supported***
H_{b4}	ESE > UC	1.570	0.230	5.164	0.000	Supported***
H_c	UC > GEI	1.931	0.460	11.799	0.000	Supported***
Indirect Effects						
H_{d1}	CS > UC > GEI	NA	0.201	5.599	0.000	Supported***
H_{d2}	ES > UC > GEI	NA	−0.090	3.322	0.001	Supported***
H_{d3}	GS > UC > GEI	NA	0.134	6.161	0.000	Supported***
H_{d4}	ESE > UC > GEI	NA	0.106	4.683	0.000	Supported***

Note: ***Significance level is 99.9%, P-value < 0.001, T-value ±3.21. **Significance level is 99%, P-value < 0.01, T-value ±2.58. *Significance level is 95%, P-value < 0.05, T-value ±1.96. Results indicate that conceptual support, education, government support, and entrepreneurial self-efficacy have a positive and significant effect on GEIs; hence, the authors accepted the direct hypotheses (H_{a1}, H_{a2}, H_{a3}, and H_{a4}). Moreover, because conceptual support, government support, and entrepreneurial self-efficacy positively and significantly affect university curricula, the authors accepted the direct hypotheses (H_{b1}, H_{b3}, H_{b4}). Education support, however, has a significant negative effect on university curricula (CU); hence, the authors accepted the direct hypothesis (H_{b2}). University curricula have a significant positive effect on GEI; hence, the authors accepted the direct hypothesis (H_c). According to indirect effects, we find that university curricula significantly mediate relationships. Conceptual, government support, and entrepreneurial self-efficacy have a significant positive effect on GEI through the mediation of university curricula; hence, the authors accepted the indirect hypotheses (H_{d1}, H_{d3}, and H_{d4}). Education support, however, negatively and significantly affect GEI through university curricula and accordingly, the authors accepted the indirect hypothesis (H_{d2}).

4) Fit Indices
According to fit indices, Table 8, we find that this model is fit since the value of the Normed Fit Index is higher than 0.90 (NF = 0.91) and the standardized root means square residual of 0.08 is within the acceptable range.

Table 8. Fit Indices

Fit summary	Saturated model	Estimated model
Normed fit index	0.910	0.910
Standardized root means square residual	0.080	0.080

The aim of the current study is to assess the effect of educational support, conceptual support, government support, and entrepreneurship self-efficacy on green entrepreneurship intentions through university curricula among university students in Egypt. We ensured that the questionnaire could be trusted with discriminative validity and reliability. The results showed that the adopted methodology

was valid, reliable, and statistically relevant in the sample application and can show that the model explains the factors describing green entrepreneurial intent.

5. Conclusions

The main objective of the current work is to comprehend the factors that draw students to green entrepreneurship. It is found that the three portrayed factors appropriately affect the self-viability variable, while the fourth factor for fostering ecological organizations. The adopted subject of the study and investigation procedure are the first of their kind in Egypt, which can be further propagated in other regional countries. However, we should assess each case exhaustively in light of the fact that every nation has its own enterprising endeavors, diverse government rules, and administration of its educational institutions. Similarly, additional methodologies can be applied in measuring the efficacy of the factors being studied here, vis-à-vis the inherent structural issues of various countries. Among the most important aspects is to know whether the university disseminates ideas in an organized and systematic way to generate new entrepreneurial ventures.

Declarations

Author contribution	:	HE; has the idea, wrote, revised the article. AR, WG, and MT; working in analysis of the results of voting, draw the figures, explain the statistical results.
Funding statement	:	There is no funding for the research
Conflict of interest	:	The authors declare no conflict of interest.
Additional information	:	No additional information is available for this paper.

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Appendix 1. Quesionnaire

Educational support for developing entrepreneurship					
My university offers selective courses on entrepreneurship.					
My university offers activities focuses on entrepreneurship					
My university offers different academic degrees'. bachelor degree, Master and PhD degree" in entrepreneurship					
My university organizes conferences/workshops on entrepreneurship					
My university connects students with startups owners to support entrepreneurship culture.					
My university provides students with the financial and policies means to start a new business.					
Conceptual support for developing entrepreneurship					
My university creates awareness of entrepreneurship as a possible career choice					
My university motivates students to start a new venture					
My university provides students with ideas to start a new venture					
My university provides students with the knowledge needed to start a new venture					
Government support for entrepreneurship					
Governmental legislations encourage green entrepreneur ship					
Our economy offers many opportunities for entrepreneurs					
Taking out bank loans is quite difficult					
Our legislations are considered as obstacles for starting and managing new startups.					
Entrepreneurial self-efficacy					
Creating and maintaining an ecological venture is a task that I can do					
I have the necessary knowledge to develop an ecological venture					
I have enough skills to develop an ecological venture					
I believe that in the future, I will be able to develop a successful green venture					
On the same scale please evaluate to which extent your university curriculums enhance your critical thinking skills to be able to:					
1. Set and meet market share goals					
2. Set and meet sales goals					
3. Set and attain profit goals					
4. Establish position in product market					
5. Conduct market analysis					
6. Expand business					
7. Taking calculated risks					
Green entrepreneurial intention					
I plan to start up a venture that addresses the ecological problems of my community					
I advise my colleagues to develop startups that solve ecological problems					
deliver My future initiatives will prioritize ecological benefits over financial ones					
I will do my best to start and run my own green venture					
I have the firm intention of starting an ecological venture one day					
I propose to undertake and act in the management of my own ecological venture					
If I have the opportunity and resources, I would definitely go green.					
It is safer to work in a company than the risk of starting a green business					