Eco-Entrepreneurial Intention:
The "Trigger" Approach

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Abstract

This empirical research aims at discovering the trigger behind students' intention to become eco-entrepreneurs. The studied sample was 500 students in 7 different prominent universities in Lebanon -3 private universities using the French system; another 3 private universities using the American system; and the only public Lebanese University. Based on The Theory of Planned Behavior, it was learned that desirability without the university trigger is a poorer predictor for students' intentions. Results showed that universities can form the nest of eco-entrepreneurship if new educational fields, cross-functional teams, and an overall commitment, are built at a national level. The limits of the study were twofold: the study focused solely on universities as the "powerful other" that influences intentions. It also focused on only two academic majors, Business and Engineering. Other "powerful others" and academic majors can be the subject of further studies to improve the understanding of students' intentions related to eco-entrepreneurship.

Keywords: Eco-entrepreneurship, Theory of Planned Behavior (TPB), intention, Lebanese Universities, trigger.

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1. Introduction

Most scholars focus on Ajzen's Theory of Planned Behavior (TPB) (1991) and the impact of intention on entrepreneurial behavior. They assume that attitudes, social norms and perceived control are the predictors of behavioral intentions (Krueger, Reilly, & Carsrud 2000; Armitage & Conner, 2001). The framework of the TPB theory relies on two fundamentals: personality on one side and entrepreneurial intentions on the other. It incorporates attitudes toward the behavior, and the subjective norms, in addition to the perceived behavioral control (Rotter 1966), that can predict behavioral intentions. While TPB concentrates on the reasoned intention as a central factor, it neglects the effect of a specific environment that considerably affects the aforementioned behavioral intentions. This article presents the basic impact of the "trigger" that can prepare students to become eco-entrepreneurs.

According to Bandura (1999, p. 6), the environment is not supposed to be a monolithic entity, but can be divided into three structures: The imposed, the selected, and the constructed. Human behavior is conditioned and regulated by environmental stimuli. The imposed physical and socio-structural environment is *"thrust upon people whether they like it or not"*; the selected structure refers to *"the choice of associates, activities and milieus"*; and the constructed structure is based on *generative efforts* that affect the interplay between "*personal, behavioral and environmental factors".* As new environmental and social challenges are met, these different structures of environment are to be stimulated under an umbrella of ecological sustainability. Higher education can be a major contribution to building such an environment, in addition to traditional teaching and researching (Laredo, 2007; Etzkowitz, 2008), universities are expected to anticipate and meet not only basic but new workforce needs as well. The need for an eco-entrepreneurial university is supported by Bourdieu's concept of Habitus (Bourdieu & Passeron, 1990): the way forward may rely on creating a structure in higher education that can instill certain dispositions in involved persons, with the hope that these dispositions will later trigger actions that relate to environmental issues (among others).

Even though this topic was discussed by environmental economists,

Lebanese literature is still lacking in regards to the role of Higher Education and its impact on promoting eco-entrepreneurship, and on creating sensitivity towards responsible entrepreneurial acts and behaviors in Lebanese universities. New papers and articles are focusing on sustainability and change that have to occur on campuses, but are not revealing how to infiltrate the spirit of eco-entrepreneurship that is urgently needed in our society. They, also, do not shed light on students' actual perceptions towards eco-entrepreneurship courses and on-campus training. This is the reason why part of the study had to refer to Moon's (2015) conceptual map, which suggests initiatives that need to be re-prioritized.

This study comes in alignment with previous studies concerning sustainability and building the responsible leadership in universities (Chidiac El Hajj, Abou Moussa, & Chidiac 2017). The purpose of this paper is to understand the significance of universities as an agent representing an external power that influences students to become eco-entrepreneurs in a country that already lacks in its main resources. Except for human resources capacities and competences (Bissat, 2014), Lebanon has been confronting a critical situation threatening an aggravated impoverishment and unemployment, as well as environmental difficulties (Blominvest, 2013; Blominvest, 2014; UNDP, 2014).

Using quantitative methodology supported by qualitative data, this study focuses on 7 Lebanese universities with the purpose of unveiling, collecting, and analyzing information about these main points:

1) Students' intentions towards entrepreneurship in general;

2) Awareness amongst students of the eco-entrepreneurship concept;

3) The role of the Lebanese universities in promoting entrepreneurship in general and eco-entrepreneurship in specific.

Such a study is of added value since it addresses eco-entrepreneurship, which despite being essential, has not been amply considered in the Lebanese context, particularly at universities. Second, the study challenges the contemporary teaching process in Higher Education, where traditional approaches normally dominate, particularly in unsustainable environments.

2.   The need for eco-entrepreneurs

2.1.   The creative destruction: eco-entrepreneurship

Coined by Joseph Schumpeter, the theory of entrepreneurship is founded on two concepts: the "innovative entrepreneurship" and "the creative destruction", considered as the "essence of capitalism". In Schumpeter's view, entrepreneurs are those who have the ability to be different. With their will and their capacity, they can impose themselves as social leaders; "*as social leadership means to decide, to command, to prevail, to advance…It is a special function, always clearly discernible in the actions of the individual and within the social whole*" (Schumpeter 1966, p. 165). Therefore, the entrepreneur is expected to manifest a "*social function*" (Schumpeter, 1942, p. 132) and some "*social actions*" (Osterhammel 1987, p. 114) in a context of "*social behavior*" (Arena, 2008, p. 73), that can ensure macroeconomic outcomes (Schumpeter, 1942), but also environmental and societal ones (Bleischwitz, Giljum, Kuhndt, & Schmidt-Bleek, 2009); even though the task can be extremely difficult (Hines & Marin, 2004).

Still according to Schumpeter (1942), the function of the entrepreneur is to "*revolutionize the pattern of production*" (p. 132), and will therefore be concerned in one of the following five innovations: launching a new product; applying new methods of production; opening a new market; acquiring new sources of supply of raw material; or organizing a new industry structure. An entrepreneur is the one who is able to model a process that fits the society and the environment, by "*recognizing an opportunity*" (Baron & Shane 2008, p. 131), and by "creating *a "new means-end framework for recombining resources"* (Shane, 2003, p. 18), leading to innovation. As *pressures have spurred the rethinking of innovations in the context of sustainable development, concepts such as "eco-innovation", "social innovation",* and others*, are increasingly regarded as a "window of opportunity" for the markets and society to move towards societal progress with an equal, low-carbon and knowledge economy*" (Gjoksi 2011, p. 1). Failure to correct current dilemmas and crisis by traditional entrepreneurship is opening doors to the process of "creative destruction", where "eco-entrepreneurship" can lead to the expected changes in economic, social and environmental

structures (Reynolds, 1991; Low & Abrahamson, 1997; Smith, Vob, & Grin 2010). This is the case in many developed societies whose eco-entrepreneurs were able to transform their economies to more efficient and green ones (Nill & Kemp, 2009). The need to adapt to new conditions is becoming more prominent in modern societies and dynamic economies. Catching new opportunities such as eco-entrepreneurship, through the creative-destruction cycle, can open new doors for sustainability.

2.2. The demand-supply equation for academic eco-entrepreneurs

As the new pressing environment is calling for a new wave of entrepreneurs, "*our societies urgently require new kinds to education that can help prevent further degradation of our planet and that foster caring and responsible citizens*" (UNESCO, 2008, p. 8). Guiding new generations to think critically and find innovative and creative solutions and alternatives about social and environmental issues is therefore necessary. Integrating the spirit of eco-entrepreneurship and its impact on societies can create the new generation of entrepreneurs the world is seeking: "Entrepreneurs who care".

Previous studies on entrepreneurship have been mostly conducted on two perspectives: the supply-side and the demand-side (Thornton, 1999). The supply-side perspective studies special types of individuals, their need for achievement as a psychological trait (McCLelland, 1975), their locus of control (Rotter, 1966), their network (Burt, 1992), their societal level (Gartner & Shane, 1995), and their ability to take risk and solve problems (McClelland, 1961; Timmons, 1978; Welsh & White, 1981). The demand-side focuses on the opportunity structure, on how entrepreneurs emerge and are encouraged based on what they really do with available resources. In addition, it is about the decisions they make within social settings that are changing over time (Thornton, 1999). This approach explains the emergence of social and ecological works (Gartner, 1988; Aldrich, 1990; Kirchhoff, Lemos, & Dessai 2013). The foundational argument of this paper is that neither the demand nor the supply perspective addresses the impact of universities' environment in stimulating students' intentions to become eco-entrepreneurs.

Developing a new type of environment to highlight the "Attitude-Behavior Context" (ABC) has been addressed by Stern, Dietz, Abel, Guagnano, & Kalof (1999) and Stern (2000), who developed the ABC model to explain that behavior is correlated to the environment. They stressed that *"behavior (B) is an interactive product of personal sphere attitudinal variables (A) and contextual factors (C)"* (Stern 2000, p. 415). Educational institutions have a major role in influencing the attitudinal spheres and contextualizing acquired knowledge. Learning first at homes, followed by schools, and later on in universities that foster eco concepts (Pittaway & Cope, 2007; Tilbury & Whortman, 2008; Bezbatchenko, 2010; Moon, 2013), the students are provided with continuous and complementary environments that offer eco-entrepreneurial education, which in turn provides knowledge, intellectual incentives (Moon, 2013), and promotes general welfare. This aligns the microscopic and macroscopic supplies and demands for green sustainable environments (Bezbatchenko, 2010): the environments in which a person may nurture a sense of responsibility towards the general need for ecological sustainability that is necessary in all countries.

2.3. The impact of eco-entrepreneurial education on eco-entrepreneurial intentions

The literature offers perspectives on the impact of entrepreneurial education on entrepreneurial intentions (Fayolle & Klandt, 2006; Nwankwo, Kanu, Marire, Balogun, & Uhiara 2012; Adekiya, & Ibrahim, 2015). Scholars, such as Unger, Rauch, Frese, & Rosenbuch (2011), have also addressed fostering skills and competences during education. Those are apparent in diverse disciplines, including economics, education and management (Davidsson, 2008), and engineering technology (Che Mat, Maat, & Mohd, 2015). In addition, the "entrepreneurial university" was discussed by several authors including Etzkowitz (2008) and Mowery, Nelson, Sampat, & Ziedonis (2001). The literature also suggested that educational institutions can have a significant impact on students' choices and intentions (Hussain, 2015). From 2014 to 2016, Nabi, Linan, Krueger, Fayolle, & Walmsley (2016) analyzed 159 published articles on the impact of entrepreneurship education (EE) on a range of learning outcomes in higher education, using a teaching model framework. The

relationships between pedagogical methods and specific outcomes confirmed that EE impact research focuses on short-term and subjective outcome measures, and under describes the actual pedagogies being tested. Moreover, Shapero and Sokol (1982) elaborated a model built on the "displacement event"; "precipitating event"; and "the trigger". They argued that displacement to a university can have a great impact on career choices. The "trigger" in this case is the instructor and the university's environment that play a guiding role with strong positive influence on students' attitudes and beliefs. For the purpose of the study, we will focus on the university as offering an environment that will nurture eco-entrepreneurship ideas in students because there are not enough studies - particularly in Lebanon - that point to the importance of educating and stimulating the eco-entrepreneurship spirit in the university's system thinking (Senge, 1990).

3. Universities' environment as the trigger: why does it matter?

From a societal need perspective, creating entrepreneurs and eco-entrepreneurs is part of the social and economic evolution. Gibb (1996) observed that their emergence is fundamental for three main reasons: job creation; strategic adjustment; and deregulation and privatization of public utilities. Along this line, it should be a national priority to "*release and support the skills of those who can envision and push innovations*" (Kanter, 1984, p. 354). Under such circumstances, societies need to not only accommodate change but also to anticipate and to initiate it (Drucker, 1989). So, instead of teaching students how to become proficient employees (Solomon, Watson, Delucchi, Schaps, & Battistich 1989), education and training should influence both behavior and future intentions (Fayolle, 2002) for students to become entrepreneurs and eco-entrepreneurs. This is based on the assumption that Entrepreneurship can be learned and should be taught (OECD, 2015), and "Teaching" goes beyond course offering, as indicated by Zepeda's (2015) recent study on entrepreneurship education.

Although entrepreneurship education can be defined as a matter of culture, of behaviors, and of specific situations, there is no strong agreement on what "*entrepreneurship education is and how it could be*"

taught" (Fayolle & Klandt, 2006). The same applies for eco-entrepreneurship education. Traditional forms of teaching at universities have shown themselves to be inadequate. Society, which is experiencing unprecedented change, requires a parallel '*radical change in intellectual and educational priorities'* (Chia, 1996, p. 411). In this respect, a number of institutions are offering entrepreneurship courses in many western countries (Vesper & Gartner, 1997). As this generation is supposed to learn how to use the available resources while preserving some to future generations (Bruntland Report, 1987), innovation in eco-entrepreneurship should be introduced in the universities' curricula. Therefore, European countries - such as France (Saleh, 2011), and American ones, are considerably promoting academic spin-offs. For example, universities, such as Oldenburg in Germany, present "Shift" program to draw the attention towards eco-entrepreneurship, where major study courses in the master's program boost intentions, and develop competencies in eco-venturing and in starting green businesses (Godemann, Herzig, & Moon 2014; Von Ossietzky, 2015). Also, new business schools are listed as top schools for eco-entrepreneurship (People and Planet's university league tables, 2015), because they outline areas of opportunity in green business (in Clark University), and introduce programs like "Doing well by doing good" (in Columbia University). Such programs have major effects on bridging cultural bonds between universities and labor markets. To evaluate such entrepreneurship education programs, Vesper and Gartner (1997) suggested a model of 18 criteria among which are the number of offered courses, the needed teachers' publications, the creation of students' ventures, and the resulting innovations. However, Moon's (2015) study on incorporating green business, sustainable products, and eco-entrepreneurship into higher education business schools' curricula, ascertained that the majority of students display negative attitudes towards curriculum development and "green business" modules.

In Lebanon, entrepreneurship comes as a result of individual initiative alone. Generally, Lebanese people do not rely on the government to provide their well-being (Chakour, 2001), and the Lebanese model of education does not help (Saleh, 2011). Blenker, Dreisler and Kjeldsen (2006) suggest the interdependence among three main pillars: the target group, the university itself, and the teaching or

learning processes used in various forms of entrepreneurship education. Because Lebanon is a small country, all universities target the same pool of students. And, by and large, the educational process remains wanting. The system reveals itself as inadequate to enhance motivation, desirability, and intentions towards innovation (Saleh, 2011). Apart from the French-inspired universities such as Berytech at the University of St Joseph, USEK, and ESA, and the American affiliated universities such as AUB and LAU (Levy-Tadjine, 2008), there is a wide disparity in raising awareness of and training in entrepreneurship at higher education institutions (Saleh, 2011). Except in rare cases, universities that tackle entrepreneurship do not address eco-entrepreneurship in particular. Yet, creating entrepreneurs and eco-entrepreneurs is a must in Lebanon since the country lacks in what Gibb (1996) delineated, namely: job creation; strategic adjustment; and deregulation and privatization of public utilities. Therefore, in 2010, Levy-Tadjine et al. addressed the Lebanese government to take decisions to develop eco-entrepreneurship. However, up till now no reaction has been adopted by the government. This paper aims to address the Lebanese universities, with the hope that it will enlighten possible actions regarding the addressed topic.

3.1. Discerning students' behavior: intentions and preferences

"Successful entrepreneurs can be characterized by an expert mindset" (Krueger 2007, p. 123). To gain such expertise, cognitive developmental psychology and constructivism can offer possibilities for the future of entrepreneurial cognition. Consequently, entrepreneurs have to structure their knowledge to better understand the related principles. Behind entrepreneurship action there are intention, attitudes, deep cognitive structures, and rooted beliefs. Therefore, as argued by Krueger (2007), teaching entrepreneurship at a profound level, and using relevant examples, can have significant impacts on students: on their intention, attitudes and beliefs. In due time, it can facilitate their transition from novice to expert entrepreneurs. However, this requires training in practices, and constructs, and in methods of cognitive science (Krueger, Kickul, Gundry, & Verma, 2006). In this context, teachers are most important because they are seen as experts in the entrepreneurial field

(Krueger, 2007). Moreover, we see evidence that even university courses can affect critical attitudes such as eco-entrepreneurial self-efficacy (Krueger, 2001; Krueger, 2007; Moon, 2015).

Reference is made to Ajzen's TPB (Ajzen, 1985; Ajzen, 1991) in order to better understand intentions, behaviors, and attitudes of individuals. This theory can play a vital role in how entrepreneurship career preferences are perceived. As a matter of fact, this theory has proven to be efficient and covers a wide fan application. It will be applied in this research to make explicit the role of university in developing knowledge curriculum and courses that educate students in eco-entrepreneurship through promoting a spirit of responsible leadership and belonging.

Another benefit of applying TPB in this is to discern (and not predict as said by Ajzen, 1991) students' intention whether they would like to become eco-entrepreneurs or not. Although the theory of reasoned action (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) argues that some factors, such as broad attitudes and personality traits, have an impact on specific behaviors, TPB presents intention as the more central factor behind any given behavior. *"The stronger the intention to engage in behavior, the stronger the performance"* (Ajzen 1991, p. 181). The assumption that intention alone can lead to performance is nonetheless not very accurate (Locke, Mento, & Katcher, 1978). The need for *"volitional control"* and the availability of opportunities and resources (such as time, money, skills and others) are prerequisites for success. *"To the extent that a person has the required opportunities and resources and intends to perform the behavior, he or she should succeed in doing so"* (Ajzen 1991, p. 182).

3.2. Locus of control and the power of others

Rotter (1966) hypothesized that people with internal personal decisions and efforts are better adjusted than those who seek reinforcements and are guided by an external locus of control such as fate, luck, or other external circumstances. Levenson's study (1973) used this concept to investigate expectancies of control on a sample of hospitalized psychiatric patients. Accordingly, three new scales were

constructed: the internal dimension, powerful others, and chance. This reasoning will help us focus on the "powerful others" who can control part of a person's intention and decision. Levenson (1973) argued that this dimension can point to paranoid subjects who are highly impacted by the power of others; however, this study will not tackle this issue or take it into consideration. It rather stipulates that the power of others played by the university over students can play the role of the "trigger".

The desirability according to social norms converges with the disposition towards entrepreneurial intention is internally assimilated through the influence of individuals such as friends, relatives, self-employed parents, family business exposure, etc (Shapero & Sokol 1982; Krueger 1993; Bandura, 1999; Hout & Rosen 2000). Krueger, Hansen, Michel, & Welsh (2010) considered that social norms represent an important part of the TPB; a theory that measures the weight of significant others (family, friends, co-workers, etc); and presumes that "*human decision-making is embedded in social norms and reflects the influence of community and organizational culture*" (Krueger et al. 2010, p. 20). According to this theory, desirability is also seen as a personal attitude that depends on perceptions of the consequences of outcomes from performing the target behavior (Krueger, 1993; Krueger & Brazeal, 1994; Krueger et al., 2010). However, with the desirability concept, comes the perception of feasibility that is built on Bandura's model (1986). It demonstrates that taking action requires consideration of outcome experiences on the one hand, and perceived self-efficacy, taking initiative, and persistence on the other. As "*self- efficacy is perceived as one's belief in one's ability to succeed in specific situations or accomplish a task*" (Bandura 1995, p. 2). It can play a major role in how one approaches goals, tasks, and challenges. Which converges with feasibility, that is, *"the individual's ability to execute a given target behavior"* (Bandura 1986, p. 25). These factors are to be complemented with the environment that can reinforce the internal disposition of the student and molds the "trigger" that affects his/her intentions and consequent behavior. Figure 1 summarizes and explains the theoretical concept that frames this research.

Figure 1: Theoretical blocks that build intention
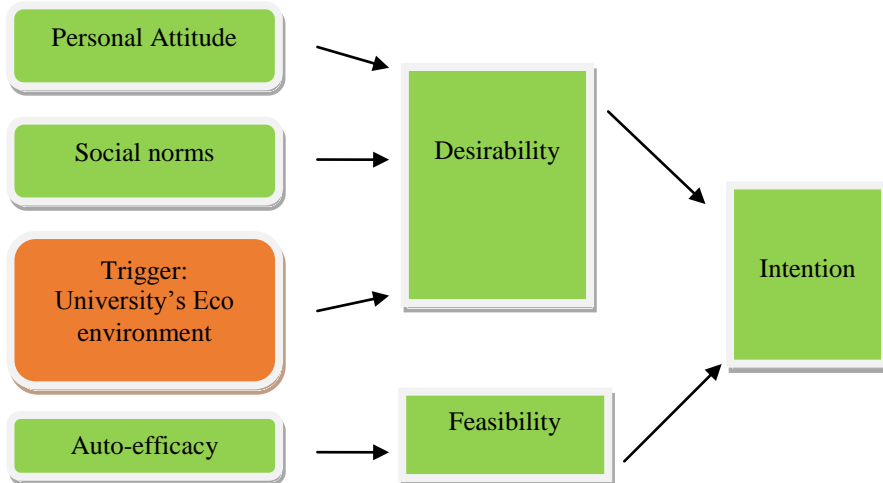
Source: New Model inspired by Krueger entrepreneurial intention model (1993) and Krugger and Brazeal (1994).

3.3. The hypotheses

This study relies on different variables, of which two are dependent: the desirability and the feasibility; while four others are independent: the personal attitudes, the social norms, the trigger, and the auto-efficacy. Relating all these variables together will help us determine students' intentions in Lebanon: 1/ whether they would like to become eco-entrepreneurs or not; and 2/ in which higher education circumstances. The novelty and added value of this research is in exploring a possible fourth factor to Krueger's model (1993), where the exposure to a favorable environment created by universities is pivotal in the creation of the eco-entrepreneur, who would be able to contribute to a greener sustainable environment. Three hypotheses follow as such:

H1: The combination of desirability without a trigger and feasibility positively affects students' intentions.

H2: The combination of desirability with a trigger and feasibility will

further positively affect students' intent to becoming eco-entrepreneurs.

Where, the trigger is defined as the university environment that fosters eco-entrepreneurship.

However, a limitation based on Moon's (2015) conceptual map is to be observed, as Moon's findings revealed that the majority of students displayed negative attitudes towards curriculum development. Therefore, one more hypothesis is to be included. Hypothesis H3 will complement the TPB theory, as it will reveal students' perceptions towards incorporating green business, sustainable products and eco-entrepreneurship into universities' curricula on the one hand. It will also help suggesting new initiatives to executives that might need to be re-prioritized on the other.

H3: The majority of students will display negative attitudes towards a new curriculum development - adopted by Lebanese universities-incorporating green business and eco-entrepreneurship courses.

4.   Research methodology

4.1.   The sample

The representative sample for this study is comprised of 500 students randomly drawn from 7 universities distributed as follows: 1 (the only) public university in Lebanon (UL) and 6 renowned private universities: 3 following the French educational system (USJ, USEK, and ESA), and 3 adopting the American educational system (AUB, LAU, and NDU). The faculties of Engineering and Architecture, and Economics and Business Administration were purposefully targeted because of the general association of these majors with entrepreneurship. The students who participated in this study spanned from undergraduates to graduates and from 18 to 25 years old.

4.2.   Measures and procedures

The methodology followed in this research is mainly quantitative. However, some elements of the survey contained qualitative data, which

enlightened particular dispositions. The qualitative data were compiled in separate files and explored in connection with the related quantitative data. The foundational elements of this study are as follows:

1. The first section of the study was built using a Microsoft online platform, to collect general demographic information concerning: age, gender, years of education and education major. Table 1 summarizes the demographics:

Table 1: Demographic description of participants

Variable	Percentage (%)	Variable	Percentage (%)
Age		Years of education	
18-20	47.4	1-3	54.7
21-24	37.9	4-6	38.6
25+	14.6	7-10	6.7
Gender		Education major	
Female	55.8	Engineering and Architecture	42.8
Male	44.2	Business and Economics	57.2

2. The second section was built on a survey questionnaire, using a Microsoft online platform. The survey was based on issues identified in the literature review on entrepreneurial intentions, exploring the contributing factors, and pointing to related existing gaps. The review not only helped in generating hypotheses but also assisted in the analysis of results. It considered, on one side, questions on the personal attitude and the social norms to evaluate desirability. It also considered on the other side, auto-efficacy to evaluate feasibility.

The literature that only addressed the relationship between desirability, feasibility and intentions, primarily revealed the following:

The personal attitude aimed at gauging students' perspectives revolved around:

* their personal knowledge in entrepreneurship;

* how they describe themselves in relation to risk;

* their preferences regarding being an employee or an entrepreneur;

* whether they would like to work as an entrepreneur.

As for the social norms, the questions focused on:

* The presence of entrepreneurs in the students' immediate environment: relatives or friends;

* whether students are aware of eco-entrepreneurship;

* who powers students' intentions of becoming entrepreneurs.

Combining personal attitude and social norms offered an evaluation on students' desirability.

To approach auto-efficacy, which is directly related to feasibility, five different questions were considered. They tackled these issues:

* If students have any facilitating conditions to become entrepreneurs;

* Students' estimation of project success according to conditions;

* The major reward students seek from becoming eco-entrepreneurs;

* Students' knowledge of the major demands of the market;

* Students' knowledge of the major resources they can use.

The purpose of exploring those different issues is to discern students' intention on whether they would like to become entrepreneurs; produced from the combination of desirability and feasibility (*cf.* figure 1).

3. Section three considered the same relationships that were described in section two, but added the influence of the trigger. The followed model that was depicted in figure 1 covered the relationship between

desirability, feasibility, *the trigger,* and students' intention. In this respect, six questions in the survey helped gauge the perceptions of the students regarding their perception of the university environment:

* Whether universities should teach students how to think across disciplines;

* If it is up to the universities to provide regional and global connections for those offering great ideas;

* If it is up to the universities to help students see their ideas become a reality and help students generate meaningful change;

* If it is important that the university gives an entrepreneurship/eco-entrepreneurship training courses;

* If the university powers the students' intention to become eco-entrepreneurs.

4.3. Data analysis

The following tests were run for data analysis: a- Correlation: which gives an overview of what variables are positively or negatively correlated. The correlation is measured by Pearson's R variable. The result was always a perfect (-1) indicating that an increase in one variable reliably predicts a decrease in the other one. b- Descriptive statistics: using "COUNT" for sample size (N), "AVERAGE" for the mean, and "STDEV" for the standard deviation. c- Paired t-test: comparing before trigger and after trigger results. And d- Khi Test: using CHITEST function to calculate p (here p=0); and $p < 0.05$ is statistically significant.

5. Findings and discussion

The revised literature considered that Personal Attitudes and Social Norms are the two pillars that constitute Desirability; and Desirability and Feasibility together predict Intention. Responses of students follow the means and standard variations described in table two:

Table 2: Means and standard deviations of students' responses related to intention

	Means Yes (%)	Means No (%)	Standard Deviation Yes	Standard Deviation No
Personal attitude	59.23	41.53	11.44	11.77
Social norms	38.13	61.87	15.89	15.89
Desirability without trigger	46.68	51.70	14.91	14.38
Feasibility	53.76	46.24	24.17	24.17
Intention	51.22	48.78	3.59	3.86

The eco-entrepreneurial intentions of students were analyzed using the above variables. The results are consistent with the literature that points to the relationship among desirability, feasibility and intention. In this model, desirability without a trigger, which entails individual personal skills to start a business, resulted in a 46.68% positive versus a 51.70% negative desirability. Personal belief that the student will be able to convert personal skills into a chosen outcome is weak and rather negative. This weakness comes along with the negative influence of the social norms that are supposed to determine a social pressure on a person to start a business. Students who are generally affected by the particular group of people surrounding them such as family, peers and immediate society, appear to be influenced by an average of a mere 38.13%. Moreover, their personal attitude is 59.23%, which means that the degree to which the students favorably valuate eco-entrepreneurial behavior is rather positive. As for feasibility, it is 53.76%, which implies that students' perception is positive in relation to their ability to successfully initiate a specific action or a new venture as illustrated by Bandura (1999) and Bandura (2001). This positivity plays in favor of eco-entrepreneurship to a certain limit. Therefore, eco-entrepreneurial intent which is regarded as the potentiality of starting a business was near average with a 51.22%. Hence, the results reveal that there is something missing: students' personal attitudes are high however the chain of reason that guides them toward intentions does not follow.

H1 is therefore accepted, where the combination of desirability without a trigger and feasibility positively affects students' intentions.

However, even if it is true that such results demonstrate that students have average intentions to become eco-entrepreneurs without a trigger, the usefulness of considering a new motivating factor (the trigger) to check its effect on intention is evident. Therefore, the following data is considered and analyzed. The university trigger questions show an average of 79.62% in positive responses, and an average of 20.38% of negative responses. When including the trigger, which is the university environment that fosters eco-entrepreneurship, results came as follows:

Table 3: Means and standard deviations of students' responses related to Intention with trigger

	Means Yes (%)	Means No (%)	Standard Deviation Yes	Standard Deviation No
Personal attitude	59.23	41.53	11.44	11.77
Social norms	38.13	61.87	15.89	15.89
Desirability with trigger	58.99	41.26	14.91	14.38
Feasibility	53.76	46.24	24.17	24.17
Intention	56.38	43.75	3.70	3.52

Table 3 indicates that the students' intentions are relatively higher when including the university trigger. This implies that the university environment can bring an added value to students' intentions, by increasing, firstly, their desirability; and, secondly, their intentions to becoming eco-entrepreneurs. These results are significant because their implication highlights the importance of guiding students by academic advisors, curricula, and business leadership. Such guidance can transform the students' lives and develop their talents towards entrepreneurship and sustainability at the same time. These two keywords complement each

other when addressed in a favorable environment that can influence intentions for creating new ventures. Intentions that attained 56.38% in favor of eco-entrepreneurship, demonstrate that students want universities to stimulate them and accommodate the new necessities of the environment, through a creative vision and new integrated programs. Organizing new eco-platforms and building supportive eco-academic environments can launch an internal desire in students' minds that helps in leveraging their will and directing them towards fulfilling a new form of entrepreneurial mission.

H2   considering that the combination of desirability with a trigger and feasibility will further positively affect students' intention of becoming eco-entrepreneurs, is therefore accepted.

Figures 2, 3, 4, and 5 summarize the main findings:
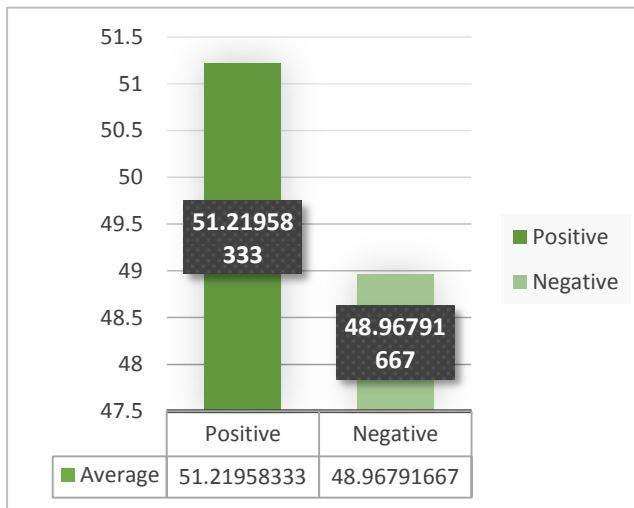
Figure 2: Intention without a trigger
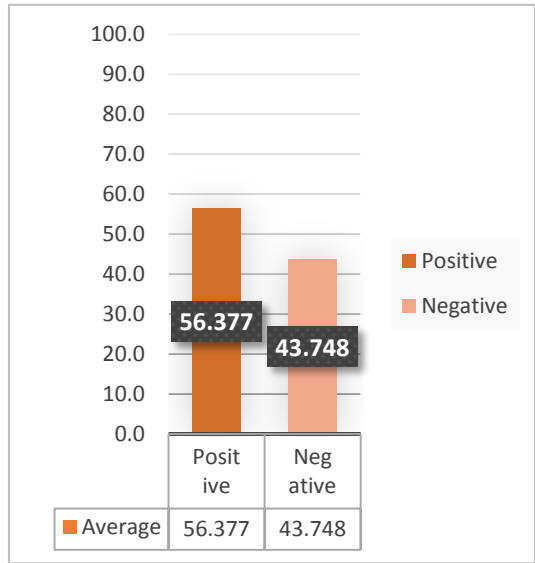
Figure 3: Intention with a trigger

Average	Posit ive	Neg ative
	56.377	43.748

Figure 4: Correlation between desirability
without a trigger and feasibility

	Yes	No
Desirability Without Trigger	48.68	51.70
Feasibility	53.76	46.24
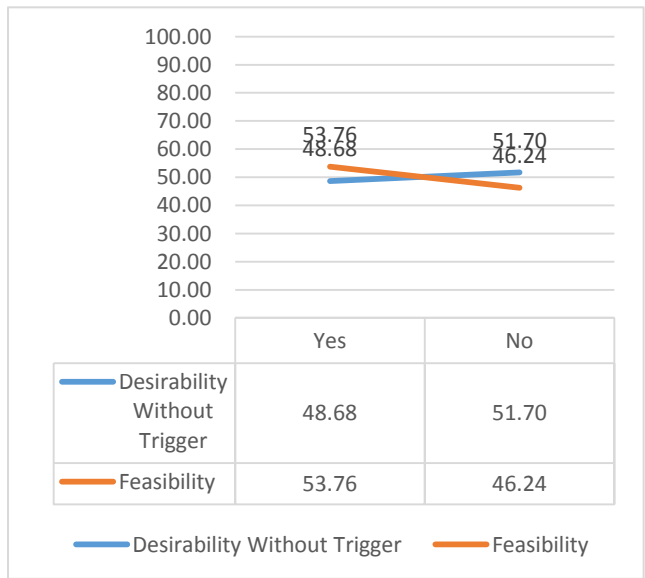
Figure 5: Correlation between desirability

with a trigger and feasibility

|	Yes	No
Desirability With Trigger	58.99	41.26
Feasibility	53.76	46.24
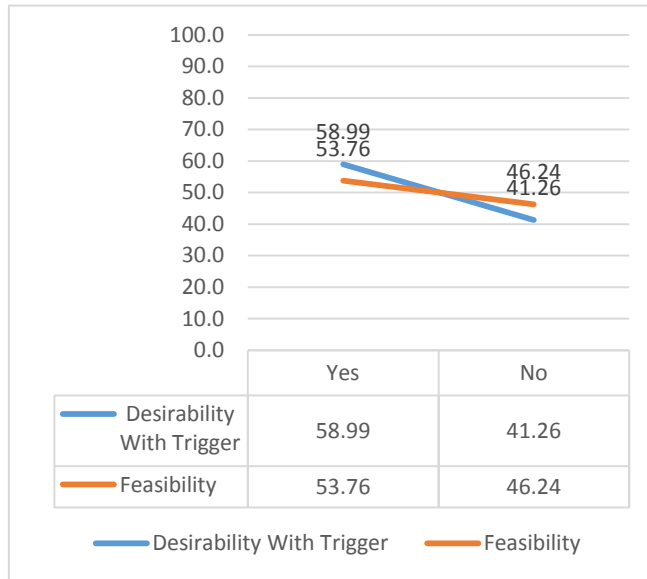
In this respect, the students' intentions, when considering the trigger are more intense. This suggests that the students are influenced by their environment and by the social norms, but even more by their universities. It is important to note that results showed a 10.31% difference in Desirability between the former and the latter influencing factors. We can infer from students' responses that the majority of students consider their universities as the place that can nurture in them new daring ideas. Relatedly, an innovative rethinking of universities' academic environments in relation to eco-entrepreneurship can induce improvement that is necessary to the contemporary world. The universities can also boost their position as they prepare future generations for relevant and desired work fields. They can distinguish themselves and become the bridge between traditional and future desired workplaces.

One pertinent question remains: Would the students be interested in eco-entrepreneurship courses, curriculum and training programs?

Answers to this question were disparate. The majority of the students 86.8% advocated that this would be an excellent step, while 13.2% were, according to Moon's description, cynical. On the other hand, 76.1% of the students admitted the necessity and usefulness of such courses, whilst 90% were very skeptic about their implementation in real life. The results of the 500 surveys are mapped onto four different quadrants (color coded: red, yellow, light green and dark green) to measure the differentiation in students' perceptions towards Eco-entrepreneurship education. Figure 6 below - partly adopted from Moon (2015) - is a conceptual map of such perceptions.

Figure 6: Conceptual map of students' perceptions towards eco-entrepreneurship education
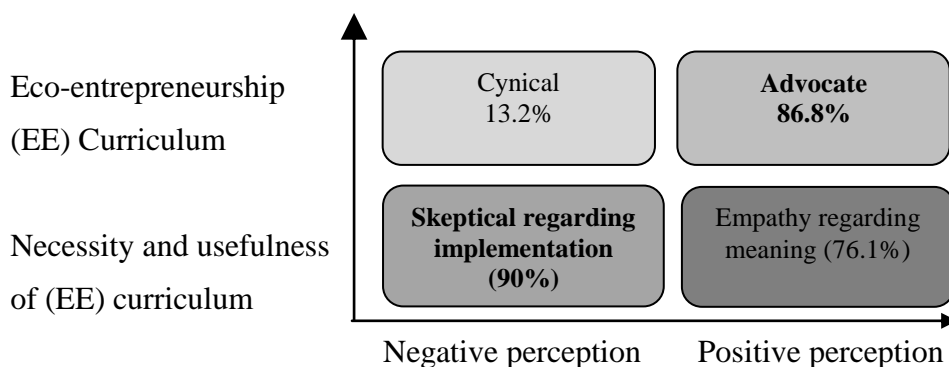
Source: New model inspired by Moon, 2015.

This study showed that the students are aware that their perceptions of the larger real world begin at universities. According to 75.6%, it is up to universities to help students see their ideas become reality and generate meaningful change in the process thus preparing them for rewarding and meaningful careers. Students want more than an academic degree: 86% want to know how to launch their own businesses through entrepreneurship training programs. In response, universities have to offer them an innovative learning environment different from the conventional one. They should embrace a culture that allows students to identify their own capabilities and competencies, and promote and develop their eco-entrepreneurial skills. Non-traditional academic

campuses can teach students who are seeking to become eco-entrepreneurs on how to develop extra skills. In addition, they motivate students' intentions to care not only about their own profits, but also about the well-being of the society and the environment. The emergence of such an environment can facilitate focusing students' vision to the world, in a country that really needs additional potentials that translate into action. At universities, the dispositions that are created through the acquisition of knowledge about eco-entrepreneurship effectively make universities educational "fields" (Bourdieu & Passeron, 1990), where the acquired knowledge and skills equip the students with additional human capital. Moreover, it connects people with similar dispositions in a network that develops their social capital in relation to eco-entrepreneurship. The enhanced human and social capitals enable them to use their future positions to create environmental ventures, address related social issues and understand how to build a durable business model.

H3   concerning whether the majority of students will display negative attitudes towards curriculum development if implemented by their universities is therefore rejected.

6.   Concluding notes

The creation of systems and structure to trigger and nurture innovative ideas and thoughts about prevalent problems is not only desired, but has become a necessity. If the challenges that face the contemporary world are not properly addressed, the future of new generations may be compromised dramatically, particularly when we think of the environmental risks that have become problematic with a global dimension and effects. The university cannot function in isolation of pertinent problems, neither nationally nor internationally, especially given that boundaries among cultures are gradually disappearing, and standardization of the education market is becoming more relevant with the advent of globalization. When universities play a supportive role to train students to think about creative career development that ensures financial profit and, more importantly, social and environmental benefits, they will mark their identities with procuring relevant and responsible education, which will more efficiently align the supply of experts with

the demands of the contemporary and future workplace (Bezbatchenko, 2010). However, this requires the universities to draw policies related to educational practices, which will spark a dynamic interest in students for developing new ideas and skills, conceiving new business models that address market needs, and solve complex problems and dilemmas that face the community at large. This kind of academic distinction will have positive repercussions on the community at large. It will also integrally benefit the university itself as it starts attracting interested students at one level, and, at another level, it will positively reflect on the image of the university as it competes for attracting distinguished students and staff.

Eco-entrepreneurship should not be a mere add-on to other courses. It rather requires flexible course structures, a problem-solving approach supported by qualified academic staff, extensive learning resources, opportunities for work placements, and access to funding (European Commission (EC), 2008). Blending the traditional programs with the real world, without compromising the social and environmental issues, will help empower students effectively. However, a pertinent question remains: what are the ways to prepare the eco-entrepreneurship trigger for students at Lebanese universities? The answer is by moving **from simple intentions to general actions, by:**

1. **Creating new educational fields**: The TPB concept helps in understanding why many entrepreneurs and eco-entrepreneurs decide to start a business before they decide exactly what type of business to start (Brockhaus & Horwitz, 1986). The role of the universities is to offer students an innovative learning environment different from the conventional one, to embrace a culture that allows them to identify their own capabilities and competencies, and promote and develop their eco-entrepreneurial skills. Sharma and Hart (2014) suggested incorporating sustainability and its derivatives such as eco-entrepreneurship education in the holistic strategy and the DNA of the universities. Moon (2013; 2015) argued that universities should focus on teaching methods such as guest speakers, case studies, competitions, environmental activities and community involvement. He also suggested strategic plans to developing and promoting this type of education. Such strategies motivate students' intentions to care not only about their own profits, but also about the well-being of the

society and especially of the environment. The emergence of this new kind of academic environment can facilitate focusing students' vision to the world, in a country that really needs additional potentials that translate into action. At universities, the dispositions that are created, through the acquisition of knowledge about eco-entrepreneurship, make of universities educational "fields" (Bourdieu and Passeron, 1990), where the acquired knowledge and skills equip the students with additional human capital. Moreover, it connects people with similar dispositions in a network that develops their social capital in relation to eco-entrepreneurship.

2. **Focusing on an overall commitment:** The creation of systems and structures to trigger and nurture innovative ideas and thoughts about prevalent problems is not only desired, but has become a necessity. With the influence of globalization and standardization of the education market, a university cannot function in isolation of pertinent local and global problems. This requires the universities to draw policies related to educational practices, which will spark a dynamic interest in students for developing new ideas and skills, conceiving new business models that address market needs, and solve complex problems and dilemmas that face the community at large. This kind of academic distinction will have positive impact on the community at large. It will also integrally benefit the university itself as it enhances enrollment through attracting interested students at one level, and will positively reflect on the image of the university as it competes for attracting distinguished students and staff on another.

3. **Building cross-functional teams to enhance the national needs:** The nature of teaching is changing, and it is challenging to recognize new opportunities, and establish a shared vision that addresses urgent initiatives in response to the needs of the 21st century. Adding sporadic courses to address urgent environmental issues does not fulfill the associated need. Rather, a more integral approach is needed starting with creating a shared sense of urgency to prompt all the higher education leaders - The Ministry of Education, the Faculty Administrations, and the Educators - to revamp their curricula and educational approach. Tighter bonds between the private sector companies, start-ups, and the job market, are also needed to create the

right opportunities. If such a change is not formally required by higher-education policies, resistance may be prevalent, particularly by unprepared faculty members and staff. It is therefore up to the Ministry of Education to lead the reform that goes beyond providing regular curricula. Its new mission is to build cross functional teams and teaching workforce, and encourage interdisciplinary and higher-level-thinking in accordance with the emerging national needs. Blending the traditional programs with the real world, without compromising the social and environmental issues, will help empower students effectively and create, as suggested by Gibb (1996), the right jobs and strategic adjustments.

Finally, this study has provided insight into the possibility of universities triggering relevant intention in Lebanese students, but not without its limitations. Firstly, it addressed universities as a "powerful other", or as the "Trigger" that influences intentions, but did not investigate other educational levels such as schools or home environment, or triggers such as educators, who can build a foundational choice in steering students towards university specializations. Secondly, study focused on two university majors, seen as capable of being influential in fostering eco-entrepreneurship knowledge and education in students. Other majors can be the subject of further studies to further understand eco-entrepreneurial students' intentions.

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