The Role of Entrepreneurial Education in Reinforcing Entrepreneurial Intentions among University Graduates: Determinants and Prospects

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Chapter One

1. Introduction

1.1 Background of the study

With the anticipation of greater potential rewards of promoting entrepreneurship in almost all Ethiopian higher learning institutions (HLIs) entrepreneurship courses has been thought as one of the mandatory courses. Unlike neighboring African countries such as Tanzania and Kenya, students in Ethiopia HLIs except in business schools only registered for entrepreneurship course for the very first time in their lifetime at final semester before their graduation. It seems that the primary desire of the government in streamlining entrepreneurship course in almost all Universities is to produce graduates with entrepreneurial mindset to reduce the challenges of graduate unemployment and ensure sustained economic growth trajectory.

Despite remarkable early phase GDP growth registered in Ethiopia over the last decade there is still growing concern of youth unemployment. With significant expansion of new public Universities over the last five years that significantly increased the number of the graduates, graduate employability has become primary issues of concern. Especially due to underdeveloped private sector in Ethiopia as well as youth dominated Ethiopian population the burden of providing employment opportunities primarily rested up on the government. Consequently, it seems the government is looking for a miracle that promotion of entrepreneurship and SMEs can provide the challenge of unemployment and ensure sustained economic growth. In this regard, despite strong policy direction and intention to promote entrepreneurship in place, entrepreneurship education and promotion practices especially among HLIs are at infant stage by itself.

In countries with low level of entrepreneurial awareness and limited entrepreneurial culture, most people tend to seek for employment in both private and public institutions. Consequently, whenever, unemployment challenges mount, they tend to blame largely the government for unemployment. Nevertheless, the government has limited capacity and institutional efficiency to offer jobs that matches ever growing demand for jobs. On the other hand, entrepreneurship education alone by itself is not the silver bullet solution to the challenges of unemployment and ensuring sustained economic growth. Yet, as venture creation is widely recognized to be a process of conceptualization

and execution what can make entrepreneurship education a success will remain the most perplexing question.

According to Africa's Competitiveness report (2013), the issues of educated youth unemployment have grown to appear as top agendas of the policy makers:

> *Despite commendable annual economic growth rates of 5 percent annual average and notable progress achieved in the area of education, including higher education, Africa has been unable to expand employment opportunities for young people, especially the most educated ones. The mismatch between high rates of economic growth and job creation is widening income inequalities and fueling social and political tensions. The current youth employment challenges in Africa are caused by a combination of the remarkable growth of an increasingly educated youth population, the slow pace of job creation in the formal economy, and persistent low productivity and underemployment in the informal sector. The continent's youth population is not only growing rapidly, it is also getting better educated.*

Similarly, there is no doubt that the same sentiment is shared among Ethiopian authorities with highly growing youth population with improved access to better education. Thus, it is high time that all concerned stakeholders, such as the government, the academia, the students, and the parents actively search for concerted working solution to tackle this head- wind of unemployment. In this regard, effective entrepreneurship promotion has its share in addressing this perplexing challenge.

One ways of promoting entrepreneurship in higher learning institutions is through streamlining entrepreneurship course in the curricula. In this regard, almost most universities in Ethiopia have started to give the course to all its graduates. Therefore, it is imperative to examine how the current practices of entrepreneurship education in HLIs in Ethiopia.

Rationale of the study / Statement of the problem

Policymakers and economists generally think that the higher the level of entrepreneurship in a country, the greater its levels of economic growth and innovation. Academic research has also shown strong relations between entrepreneurial activity and economic performance. Following increasing number of graduates from Ethiopian higher learning institutions, the growing concern for graduate unemployment is vividly apparent. This in turn is increasing the concern of all stakeholders involved

in the process. Nevertheless, it is misleading to assume that first; all students have intention to be entrepreneur; second; entrepreneurship training/education is the 'silver bullet' to address growing graduate unemployment; third, if entrepreneurship education promotion is found feasible, its effectiveness and its modality of training has to be carefully assessed, designed, and implemented.

Since recently at the core of entrepreneurship promotion debate, the attention has shifted from whether entrepreneurship can be educated or not to how to educate or promote entrepreneurship. As University entrepreneurship education in Ethiopia is still a new venture in itself, the issues of how to effectively educate entrepreneurship among young university students will remain outstanding challenge. In this regard, the real promise of entrepreneurship education will be realized when it is strategically organized for economic development and job creation. Accordingly, the basic questions an entrepreneur education need to include: why is it important in the first place? How should it be distinguished from related programs? How should its success be measured? Which student should learn it? How should the subject be taught? What should be the curriculum and who should teach it?

Summaries of Global Entrepreneurship Monitor reports (2001-2012) suggest that, entrepreneurial attitudes, aspirations, intention, and activities are highly intertwined concepts. Scholars also strongly assert that entrepreneurial intention is the best measures of entrepreneurial activities. The study by Fitzsimmons and Douglas (2011) also suggest that, entrepreneurial intentions depend on perceptions of desirability and perceptions of feasibility. In this regard, it is imperative to examine how the currently offered courses in entrepreneurship in Ethiopian universities are nurturing the desired entrepreneurial intentions that will lead to entrepreneurial activities to facilitate realization of opportunities in order to create successful ventures.

Although entrepreneurial intention has been widely studied by scholars from overseas, the question of their applicability in Ethiopian HEIs settings remains issues of research. As such, this study proposes a research framework by extending Ajzen's (1991) theory of planned behavior (TPB) to study entrepreneurial intention among undergraduate students in Addis Ababa (AU) and Adama Science and Technology University (ASTU). Accordingly, the two simple and general preposition of the study:

1. It is believed that with adequate knowledge, education, and inspiration for entrepreneurship, the possibility of choosing and entrepreneurial career may increase among young people.

2. Entrepreneurial knowledge gained from a formal entrepreneurial course will enhance individuals' entrepreneurial intentions.

Accordingly, the key objective of the research is to examine the extent to which the entrepreneurship course teaching practices is changing entrepreneurial intentions of the students in targeted universities.

Research Questions:

The key guiding research questions of the study are:

1. Is there significant difference on the level of entrepreneurial intention among graduates before and after taking entrepreneurship course?
2. How does the level of entrepreneurial intention vary depending on demographic characteristics (gender, family background and prior business experiences) of graduates?

1.2 Methodology and / or method of the study

The study involved both ex-ante and ex-post testes of entrepreneurial intentions of students and bounded by the main theoretical model indicated by the Theory of Planned Behavior (TPB).

In order to measure entrepreneurial intention similar questionnaires are designed to test intentions before and after taking entrepreneurship course. The major target of the questionnaire is to identify the extent to which the course of entrepreneurship has changed the intention to consider/ pursue entrepreneurship as worthwhile career choices. The instrument is designed mainly considering the basic framework and variables mainly indicated in the theory of planned behavior.

The questionnaires were distributed among students from engineering, natural sciences and business & economics studies in both universities. The target selection is just done based on the students taking the course in that particular semester based on stratified sampling techniques.

Out of 400 questionnaires distributed among students from both universities, 336 questionnaires were fully filled and used for analysis. The items were built as seven-point Likert type scale, being 1 "Strongly disagree" and 7 "Strongly agree." the internal consistency of the instrument was well above the cut-off point of 0.7 (Cronbach's Alpha = 0.86).

Research Design

The study used one group pre-test and post test design. The design of the study is organized in such a way that measure of entrepreneurial intention of the students were done through self administered questionnaires distributed to selected groups of students while similar questionnaires were distributed after students have taken the course. Although the contents of the questionnaires also covered belief and character related attributes, the primary target of the study remained measuring the change in the entrepreneurial intentions after taking entrepreneurship course.

Sampling Procedure and Technique

Sampling procedure and technique of the study was a multi stage procedure. Once the universities were selected, all schools/colleges/faculties within these universities were identified and included to the list. Then, from each schools/colleges/faculties listed, two departments were selected using simple random sampling technique. Finally, sections existing under each of these randomly selected departments were listed and only one section was selected from the list using simple random sampling technique. As a result, the list of target respondents constituted name of students registered to take entrepreneurship at the beginning of the semester and who qualify to sit for final examination after completion of the course. However, due to lack of uniformity of timing of course offering among the different departments in the two universities, the selection of respondents based on students assigned to take the course during this particular study. As a result, analysis and generalization of the findings specifically to each university or departments found difficult.

Sources of Data

The unit of analysis for this research design is individual students from targeted universities who were registered to take entrepreneurship course during the semester considered for the study (2014/15) Ethiopian academic year.

Method of Data Analysis

After verifying that all the data are properly coded and entered, assumptions for appropriate parametric test is done measure of T-test and other descriptive statistics were used to support the analysis with the support of SPSS version 20.

Limitation of the study

Some limitations were identified due to methodological choices. First limitation is related to the fact that students were selected at random just considering whether they take entrepreneurship during the semester considered for the study

The next limitation is associated to subjectivity of students' response as all the instruments were only based on perceptual measures. This choice can be subject to criticism in that perceptions are likely to differ from what is to be in reality. It can also be criticized because the use of self-reported measures can be a source of common method variance and the tendency to agree with items independent of content. However, relevant statistical tools were applied to ensure the reliability and validity of the measures.

Chapter Two

2. Theoretical background of the study

This particular study strongly considers entrepreneur can be developed somehow through proper education. I.e. entrepreneurs can be made. In this regard, the preferred assumption underlying entrepreneurship education program is that entrepreneurial intentions and competencies can be developed through effective entrepreneurship education programs, effective policy direction and effective supportive system that is specifically designed to fit the underlying contextual scenarios of a given country or educational system.

Notwithstanding will both established and empirical finding related to the subject matter of the study, this particular study adopted the basic concepts, notions and theoretical perspectives indicated in the theory of planned behavior (TPB) to measure entrepreneurial intention.

2.1 Insights on the theory of planned behavior

There are different competing models in addressing entrepreneurial intentions among which the Shapero's Entrepreneurial Event model (SEE) in which entrepreneurial intentions depend on three elements: a) the perception of the desirability; b) the propensity to act; and c) the perception of feasibility (Shapero, 1982). Another well recognized model is based on Ajzen's theory of planned behavior (Ajzen, 1991). According to Ajzen, intentions are explained by: a) subject's attitudes toward the behavior; b) subjective norms; and c) the subject's perception of behavioral control. Another model of intentions was developed by Bird (1988) which considers that entrepreneurial intentions are based on a combination of both personal and contextual factors.

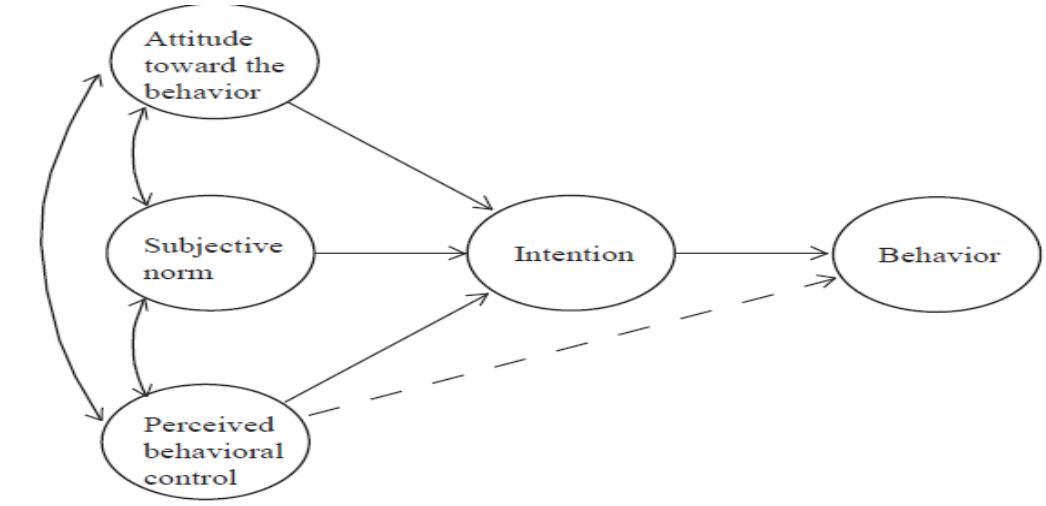
The Theory of Planned Behavior (TPB) provides a useful conceptual framework for dealing with the complexities of human social behavior. The theory incorporates some of the central concepts in the social and behavior sciences, and it defines these concepts in a way that permits prediction and understanding of particular behaviors in specified contexts. According to TPB intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in a behavior, the more likely should be its

performance. Consequently, intention is believed to be the best predictor of an individual's behavior with regard to measuring entrepreneurship (Ajzen, 1991; GEM reports). However, the intention to undertake an enterprise can also be affected by the fostering of certain entrepreneurial characteristics (traits, skills, and knowledge) that are closely related to the development of entrepreneurship. Nonetheless, attitudes are an important explanatory variable of entrepreneurial actions through its influence on intentions. To form attitudes toward performing a certain behavior, there must be a belief that performing the behavior will result in certain consequences (Davidson, 1995).

The theory of planned behavior postulates the following three predictors of intention: the theory asserts that, perceived behavioral control, together with behavioral intention, can be used directly to predict behavioral achievement. The attitude toward the behavior refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question whereas subjective norm refers to the perceived social pressure to perform or not to perform the behavior. In addition, the degree of perceived behavioral control refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect experience as well as anticipated impediments and obstacles. In general, the more favorable the attitude and subjective norm with respect to a behavior, and the greater the perceived behavioral control, the stronger should be an individual's intention to perform the behavior under consideration. However, the relative importance of intentions and perceived behavioral control in the prediction of behavior is expected to vary across situations and across different behaviors.

In considering entrepreneurship, the intention to perform a given behavior is the intention towards entrepreneurship (entrepreneurial intention). Furthermore, the three predictors of intentions are defined as follows:

'**Attitude towards entrepreneurship**' is the degree to which the respondent has a favorable or unfavorable evaluation of being an entrepreneur. Hence, high attitude towards entrepreneurship indicates that the respondent is more in favor of entrepreneurship than other occupational options. '**Subjective norm**' refers to perceptions of what important people in respondents' think about their decision to become an entrepreneur. Finally, '**perceived behavioral control**' indicates the perceived ability to become an entrepreneur and more specifically, it refers to the perceived ease or difficulty of becoming an entrepreneur and the confidence in their ability to succeed. Diagrammatically the basic notion original model of TPB is depicted as follow:



Source: Ajzen (1991), p. 182

2.2 Remark on entrepreneurial intentions

Humans do not engage in entrepreneurship by accident; they do it intentionally because of choice. Entrepreneurial intentions are conscious state of mind that directs personal attention, experience, and behavior toward planned entrepreneurial behavior. Consequently, there is a need to understand how to develop and nurture potential entrepreneurs. The attitude and knowledge of entrepreneurship are likely to shape their inclination to start their own businesses in the future. There is general agreement that attitudes towards entrepreneurship are determinant factors to decide to be an entrepreneur.

A lot of research has been done to understand factors that contribute to the venture creation process. Entrepreneurial intention, as a person's plan or willingness to start a new venture, has received growing attention, especially from a social psychological perspective (Shapero, 1982; Krueger et al., 2000). Entrepreneurial intention is an important factor; it precedes the actual behavior, thus providing good predicting power for entrepreneurship (Ajzen, 1987; Krueger et al., 2000; Shook et al., 2003). However, the understanding of entrepreneurial intention is far from complete. If intention is homogenous, why do some entrepreneurial intentions never turn into new venture creations? Thompson (2009) pointed out that there is lack of a clear or consistent definition of and a reliable way to measure individual entrepreneurial intent. In this regard, social psychological variables can improve the predictability of entrepreneurial behaviors to a certain degree, and seem to be better than those typically used measures such as personal traits or attitudes measures. However, existing empirical tests show inconsistency in the predictive role of the social psychological variables. Some literature suggests

there are many predictors for an individual's entrepreneurship, such as personality, beliefs, culture, values, demographics, education, past experiences, psychological factors, and social networks.

Entrepreneurial intention is the state of one's mind to foster the new business or venture creation. Entrepreneurial conviction is a measure of the perceived ease of starting up a new firm as well as to the perceived feasibility of such a choice. However, a person will only initiate entrepreneurial actions when one's entrepreneurial conviction is high in relation to the perceived requirements of a specific opportunity. Studies have proven that conviction stands out as the primary explanation and determinant of entrepreneurial intentions. Moreover, intentionality is grounded on cognitive psychology that attempts to explain or predict human behavior. Similarly, attitudes towards entrepreneurship (perceived feasibility and perceived desirability) should be partially derived from prior exposure to entrepreneurial activity. It affects intention and thus behavior through changing attitudes.

Model of new-venture initiation proposes that the decision to initiate new venture requires two things. Firstly, the individuals should have intentions towards entrepreneurship and the perception that starting a new venture is credible. Secondly, the new venture initiation requires some kind of precipitating event. Credibility requires at least a threshold level of perceptions of feasibility and desirability with some propensity to act upon the opportunity.

Some studies suggest that the effect of family's career choice as an entrepreneur on their children's choice. Self-employed parents affect the entrepreneurial interest as well as the career choice of their children. There are two models to explain the family influence: parental role model and family support model. The parental role model asserts that persons with self employed parents are more likely to start their own business due to the example of their parents. The family support model attributes this phenomenon to the financial or social support of their families. Thus, it is expected to observe the positive correlation between entrepreneurial propensity and family income or social status (Obschonka, Silbereisen, and Rodermund, 2010).

2.3 Entrepreneurship Education

Entrepreneurship education is intended to change the mindset of students to have behavior and even intention toward entrepreneurship to create new venture. Fostering the entrepreneurial spirit of the college student is regarded as one of the solutions for reducing the level of unemployment. Entrepreneurship education has a purpose to be able to create and increase awareness to establish business as a career choice among young people. Some studies support the presumption that entrepreneurship education has had an impact on student propensity and intentionality (Pittaway and Cope, 2007). The purpose of entrepreneurship education is associated with developing a variety of skills and attributes such as the ability to think creatively, work in a team and to manage risk. According to (Mwasalwiba, 2010) Entrepreneurship programs usually focus on the following three major domains:

(1) Programs that are for giving an orientation and awareness about entrepreneurship;

(2) Programs that develop competences for new enterprise formation, self-employment, or economic self-sufficiency; and

(3) Programs that focus on small business survival and growth.

In Ethiopian higher learning institutions contexts, few empirical evidences have been reported regarding the effect of exposing students to entrepreneurship education on the entrepreneurial intentions. However, studies conducted in other countries context suggested that entrepreneurship education should improve the perceived feasibility for entrepreneurship by promoting self-efficacy and perceived desirability for an entrepreneurial career (Krueger and Brazeal, 1994**).**

The landscape of entrepreneurship education in Ethiopian universities is poorly known due to dearth of research in the area. Accordingly, little is known about what and how entrepreneurship is taught in the universities. However, few research outputs (such as Dugassa, 2012; Emnet and Chalchissa, 2013) indicate that the main objective of entrepreneurship education in Ethiopian public universities is just to acquaint students with the fundamentals of the course. The major focus of discussions include nature and historical development of entrepreneurship; background and characteristics of entrepreneurs; business plan development; economic contributions of entrepreneurship; legal forms of businesses; and small business management principles. The effectiveness of entrepreneurship education with such objectives and focus is not expected to produce graduates with good entrepreneurial orientations. According the most recent survey conducted by (Dugassa, 2008; Mudde, Dugassa, and Alemfire, 2015), entrepreneurship education is in its early phase of development in Ethiopian public universities. Traditional teaching and evaluation methods are dominant in teaching

and assessing entrepreneurship courses in Ethiopian universities. Nonetheless, the overall trend of entrepreneurial education eco- system in Ethiopia is gradually evolving.

Entrepreneurship education exists in the undergraduate curriculum offered in the last year of the study program. The exact name and number of credits differ per department and university, but on average, it is a three-credit course, mainly offered as a supportive or common course, downplaying its importance. In addition, the current offering of the course in the university is not largely supported by:

- Workshops / networking with experienced entrepreneurs
- Mentoring and coaching programs for entrepreneurs (student start-ups)
- Business plan contest / workshops in more practical sense
- Contact point for entrepreneurial issues to provide necessary start up support services
- Contact plat forms with potential investors (networking with 'Business Engels' and/or 'Venture capitalists').

Chapter Three

3. Discussion and results

This part presents the major empirical findings obtained from the primary data from a total of 336 students from both ASTU and AU from mainly engineering, natural science, and business fields of studies.

3.1 The respondent's profile

The respondents of this particular study are students who have taken entrepreneurship course during second semester of 2014/15 academic year from Adama Science and Technology University and Addis Ababa University on random basis. Table 3.1 below shows the respondents profile based on total of 336 responses obtained from both universities.

Table 3.1 respondents' profile

S.N	**Variables on the respondent's profile**	**Response category**	**Frequency**	**Percentage**
1	location of respondents	AAU	148	44 %
		ASTU	188	56%
2	Gender	Male	215	64%
		Female	121	36%
3	Educational Background	Engineering and natural Science	224	67%
		Business and Economics	85	25%
		Other social sciences	27	8%
4	Religion	Orthodox Christian	219	65%
		Muslim	44	13.1%
		Protestant	54	16%
		Catholic	4	0.01
		Other	13	0.03
	Total number of respondents of each category		**336**	

The facts indicated in the table 3.1 above are just intended to give clear picture of respondent's profile otherwise; it is not used for in-depth analysis. The majority of the respondents are from engineering and natural science disciplines.

3.2 Background information on the respondents' profile

Table 3.2 Background information on the respondents' profile

S.N	Issues for background information	Response category	Frequency	Percentage
1	Do you have any previous work or business experience?	Yes	74	22%
		No	262	78%
2	Have you ever attended any entrepreneurship courses or training before	Yes	131	39%
		No	198	58.9 %
3	Do your family own and run business?	Yes	186	55.4%
		No	139	41.4%
	Total number of respondents of each category if no missing response		336	

Background information of the respondents' indicate whether the respondents have prior business experience; whether their family own and run business; and whether they have received any form of training on entrepreneurship. As it is clearly depicted nearly 22% of the respondents have prior business experience of any form where 55% of the respondents indicated their families own and run business to make a living. Besides, 39% of the respondents indicated that they have attended prior training on entrepreneurship. The effects of the background information on the entrepreneurial intention will be discussed in the subsequent headings.

3.3 Comparison of pre and post test of entrepreneurial intention of graduates

The major issues considered for comparison of pre and post entrepreneurial inattention tests include: whether they prefer to be well-paid salary worker; whether they consider being an entrepreneur entail more advantages than disadvantage; whether they desire to be an entrepreneur than any other career opportunities; whether they have immediate intention to own and run businesses immediately after graduation among others. The descriptive statistics of the responses for the issues raised are presented in the table below:

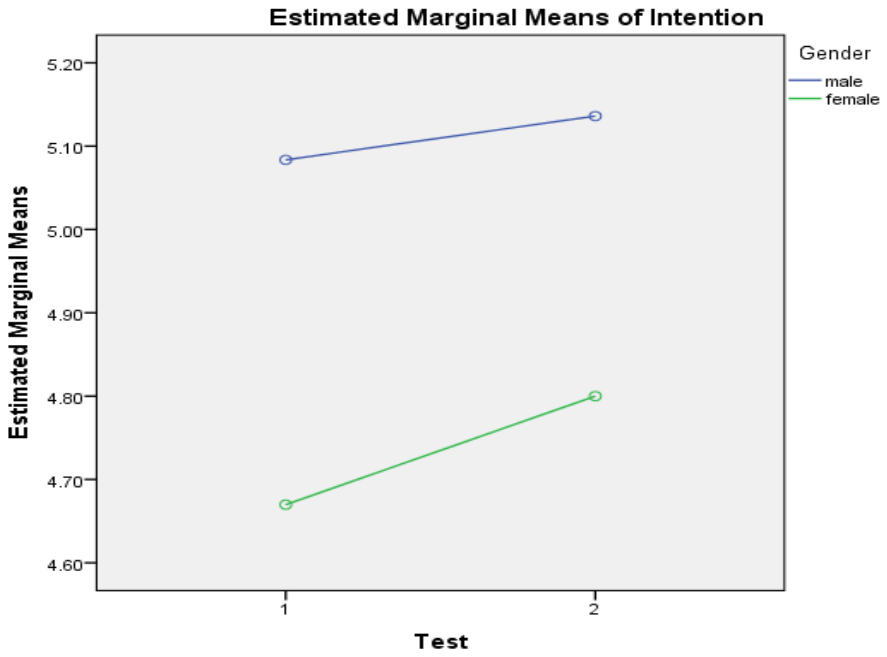
Table 3.3 Descriptive comparison of pre and post entrepreneurial intention

Issues raised for comparison	pre–intention statistics			post-intention statistics		
	Mean	**mode**	**Std. D.**	**Mean**	**mode**	**Std. D.**
I prefer to be well-paid salaried worker	4.84	7	2.11	4.80	7	2.04
Being an entrepreneur implies more advantageous than disadvantageous to me	5.65	7	1.7	5.66	7	1.59
Starting a business is much more desirable than other career opportunities I have	5.16	7	1.76	5.00	6	1.75
Among various options, I would rather be an entrepreneur	4.86	7	1.82	5.13	7	1.65
If I have opportunity and resources , I would like to start my own business	5.90	7	1.62	5.67	7	1.68
I intend to own and run my own business immediately after finishing my degree	4.04	4	1.98	4.12	4	1.85

Where 1 strongly disagree and 7 represent strongly agree

Considering descriptive statistics values there is no significance difference observed in aggregate value of students' response before and after taking entrepreneurship course with regard to choosing entrepreneurship as more preferred career choice. Despite the deviations, most of the students prefer to be well-paid salaried worker. Similarly, even after taking the course most of students' responses suggest that they have no immediate intention to own and run business of immediately after graduation. Nonetheless, the majority of the students' responses suggest that starting a business is much more desirable than other career option and if they have opportunity and resources, they would like to start their own business. Form their response it seems though entrepreneurship as career choice perceived positively, the conviction to start a business is minimal. Consequently, almost most of the students have no immediate intention to own and run a business immediately after the graduation. Nonetheless, the existences of higher standard deviation value clearly suggest the possibility of variation in intention among different groups of respondents. Specifically, considering gender disparity, the majority of both male and female students prefer to be well-paid salaried worker with few exceptions before and after taking the course.

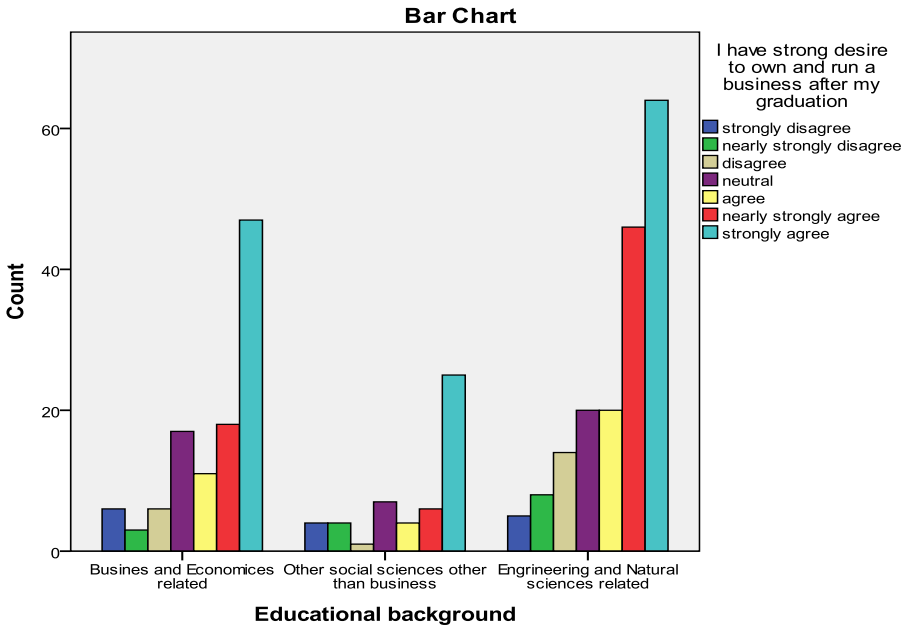
Fig 1 post intention comparison between male and female



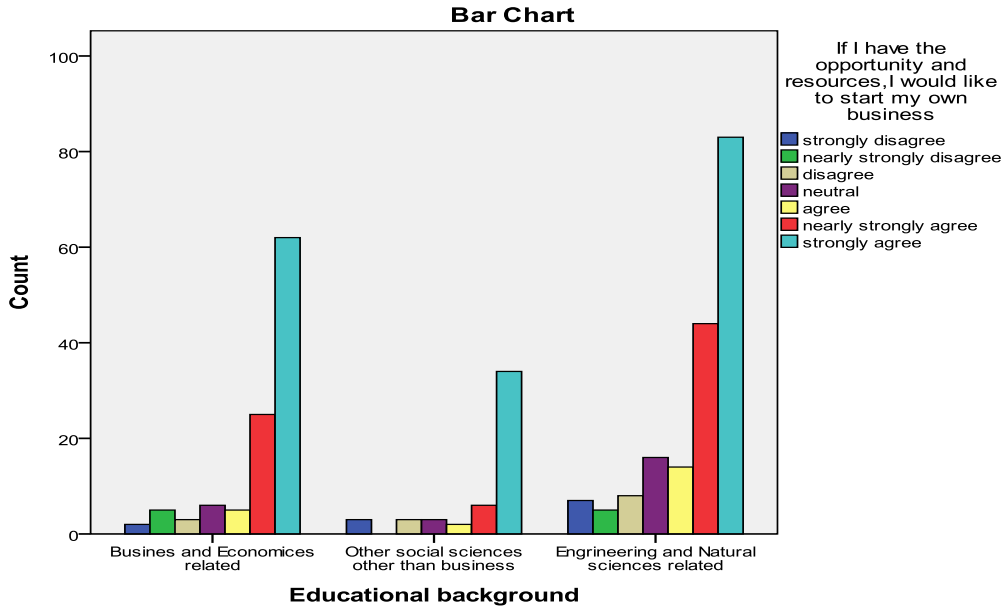
As it is depicted in the above figure male students' response exhibit higher mean value with regard to entrepreneurial intention compared to female students before taking the course. However, the female students intention measure though it is still lower than male students, they have shown increasing entrepreneurial intention after taking the course at increasing rate than male students. This may suggest, if special emphasize is merited for female students they are slightly better than male students in their entrepreneurial intention.

Considering both genders across different fields of study the majority of respondents still claim they have strong desire to own and run their own business. However, there is no significant disparity observed across the gender and different fields of disciplines. Interestingly, most of the students across different discipline claim that, if they have favorable opportunity and resources they have desire to start their own business as depicted in the bar charts below respectively.

Bar chart 1 Pre intention comparison among different disciplines

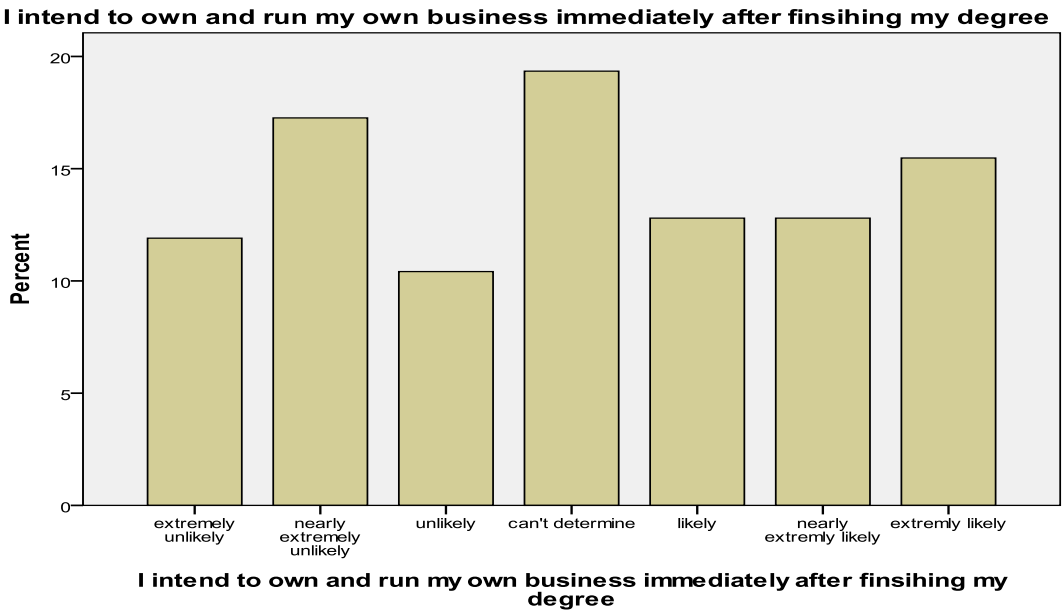


Bar chart 2 availability of resources vs. entrepreneurial intention



Data in the above charts suggest that the vast majority of students among different disciplines strongly desire to start their own business if opportunity and resources are available to them.

Bar chart 3 Pre intention perception



Specific individual based response clearly attested that nearly 60% of the students have no desire to start their own business immediately following their graduation whereas around 40 % of the respondents even before taking the course have shown desire to start and run their own business. Similarly, the intention barely changed even after taking the course.

3.4 Aggregate comparison of pre and post intention measures

The aggregate pre and post intention measures whether there is significant change of intention among students after taking entrepreneurship course. Accordingly, the pre intention measure is done before students have taken the course immediately after registration for the course while post test measure is conducted after students have completed attending the class immediately before the final examination. Holding other factors constant, the descriptive statistics values of pre and post intention measure is indicated in the table below:

Table 3.4 comparison of aggregate pre and post intention test measures

Descriptive statistics	Aggregate pre- intention measure	Aggregate post- intention measure
Mean	4.92	4.923
Median	5	5
Mode	5	5
Std. D.	1.026	1.004

Where 1 strongly disagree and 7 is strongly agree

The aggregate results of comparison of pre and post intention measures clearly confirm that there is no significant intention change observed among respondents after taking the course. Considering the mean value and deviations, almost most respondents have shown moderate intention to start their own business or perceive being an entrepreneur as one of their preferred options. Surprisingly, the post intention descriptive measure values suggest almost there is no change in intention even after taking the course. Assuming other factor constant, it is difficult to claim the entrepreneurship course given to the students has significantly brought about change in intention among students across universities.

3.5 Examination of support system and character

Support system

Support system in this particular study refer to the extent to which it is perceived that pursuing entrepreneurial career among the graduates most preferred and /or encouraged by the closest relatives / families / friends / society at large. The entrepreneurship process is a complex endeavor carried out by people living in specific cultural and social conditions. For this reason, the positive or negative perceptions that society has about entrepreneurship can strongly influence the motivations of people to engage in entrepreneurship as career path. Societies benefit from people who are able to recognize valuable business opportunities and who perceive they have the required skills to exploit them. If the economy in general has a positive attitude towards entrepreneurship, this can generate cultural and social support, financial and business assistance, and networking benefits that will encourage and facilitate potential and existing entrepreneurs.

Positive attitudes about entrepreneurship in an economy can indicate the propensity for people to engage in this activity. In addition, attitudes can signify the extent to which a society may provide cultural and financial support and generate potential stakeholders that could enhance and assist the efforts of entrepreneurs (GEM, 2012).

According to GEM report (2012), on average, individuals in Sub-Saharan African economies had high perceptions about the presence of good opportunities for starting a business in the next six months. (70% of all respondents) perceive that they have the skills and knowledge necessary to start a business. Sub-Saharan Africa, with mostly factor-driven economies (the earliest stage of economic development), also reported high entrepreneurship start up rates, consistent with their positive attitudes. However, their motivations and the types of businesses in which they commonly engaged differ from the more developed economies.

Conventionally, in Ethiopia entrepreneurial culture can be considered poor among the society. The society give due respect to someone who is employed than own and run start up firm. However, over the last decade slowly the perception towards entrepreneurship is changing.

Table 3.5 Entrepreneurial attitudes and perceptions in the SSA in 2012

Economy	Perceived opportunities	Perceived capabilities	Fear of failure*	Entrepreneurial intentions **	Entrepreneurship as a good career choice+	High status to successful entrepreneurs+	Media attention for entrepreneurship+
SUB-SAHARAN AFRICA							
Angola	66	72	38	70	-	-	-
Botswana	67	71	25	72	76	73	79
Ethiopia	65	69	33	24	76	92	73
Ghana	79	86	18	60	84	91	82
Malawi	74	85	12	70	-	-	-
Namibia	75	74	35	45	73	76	82
Nigeria	82	88	21	44	82	76	78
South Africa	35	39	31	12	74	74	73
Uganda	81	88	15	79	-	-	-
Zambia	78	84	17	55	67	79	72
Average (unweighted)	70	76	24	53	76	80	77

(Source: GEM report, 2012

According to GEM 2012 report, in Ethiopia there are significant numbers of people who perceived there are opportunities, which they also think capable of dealing with. Interestingly, entrepreneurship is highly regarded as good career choice among the society. Moreover, the vast majority of society gives high status to successful entrepreneurs. Nevertheless, entrepreneurial intention is still the lowest as compared to the SSA average.

Table 3.6 Support system as perceived by the students

Statistics

		My closest relatives prefer if I persue an entreprenurial career	My friends think that I should persue a career as an entrepreneur	My close families and friends strongly appreciate If I take risk to open my own company	Entreprneurial actvity clashes with the culture in my country	Many people consider hardly acceptable to be entreprneur
N	Valid	336	336	336	336	336
	Missing	0	0	0	0	0
Mean		3.88	3.81	4.12	2.84	3.94
Mode		4	4	4	1	4
Std. Deviation		1.900	1.832	2.028	1.970	1.977

Where 1 shows strongly disagree and 7 is strongly agree except the reversed questions

According to the aggregate perceptual response values obtained from the students pursuing entrepreneurship as a career is less likely appreciated by the families, relatives or friends. Besides, the general shared impression is that entrepreneurship as a career is not yet fully appreciated to be worthwhile career among the society. However, the existences of standard deviation values clearly suggest the possible disparity among different groups of respondents. Therefore, despite slowly changing attitudes towards entrepreneurship in Ethiopia, still the society closely associated educated individuals are supposed to be employed than creating their own venture. In simple term, a parent or closest relatives who have student in the University barely consider their children would be an entrepreneur.

Table 3.7 Perception on Character / belief

Issues raised for question	Descriptive statistics measure		
	Mean	Mode	Std. D
I seriously consider to create and run my own company	5.07	7	1.74
I am ready to make everything to own and run a company	4.66	7	1.98
I will make every efforts to start and run my own company	5.28	7	1.81

Where 1 is strongly disagree and while 7 represent strongly agree

Considering students' perception and beliefs, most of the students' responses suggest that they seriously consider creating and running their own company. However, it seems that despite their positive perception regarding entrepreneurship; they are neither committed nor exhibit readiness to pursue entrepreneurship as career of their choice immediately after their graduation. Nonetheless, still the standard deviation values indicate there are strong variations among the respondents.

Table 3.8: Skill and competency

Issues raised for question	Descriptive statistics measure		
	Mean	Mode	Std. D
I have a tendency to plan my future carefully	5.64	7	1.62
I spent a lot of my time learning about starting a firm	3.25	1	1.80
I always search for sufficient information before starting a project	5.57	7	1.67

Where 1 is strongly disagree and while 7 represent strongly agree

As indicated in the table above with few exceptions most student claim they have a tendency to plan about their future carefully, yet most of students barely spent time in acquiring the necessary skill to start a firms. However, most of students clearly understand the importance of information search before starting entrepreneurial project. Generally, it is believed that developing the skills and capabilities required for starting a business.

Table 3.9 perception on beliefs

Issues raised for question	**Descriptive statistics measure**		
	Mean	**Mode**	**Std. D**
I trust that I can succeed in everything that I want to do	5.62	7	1.56
I do what is to be done without waiting for others to tell me what to do	5.38	7	1.67
I keep my promises	5.71	7	1.62
I think it is a waste of time to worry about what I am doing with my life	2.83	1	2.08
I like challenges and new opportunities	5.41	7	1.70

Where 1 is strongly disagree and while 7 represent strongly agree

Most of the students' response suggest that they belief they can succeed in everything they want to do; they possess high self initiatives; keep promises including embracing new opportunities and dealing with challenges. However, there are significant variations among the students' response.

Table 3.10 perception on competence

Issues raised for question	**Descriptive statistics measure**		
	Mean	**Mode**	**Std. D**
When something gets in my way I keep trying	5.43	7	1.56
I use the help of important people to achieve my goals	5.62	7	1.61
When I am doing something difficult I am confident that I will succeed	5.53	7	1.52
I dare to do new things differently from what I have done in the past	5.30	7	1.63

Where 1 is strongly disagree and while 7 represent strongly agree

According to students' self assessed perceptual response most of the students claim that they persistently keep on trying something; they claim to look for help from important people to achieve their goals; they perceive that they will succeed while they dare to do things differently. However, the

existence of higher standard deviation value suggest, it is difficult to generalize for all groups of the students.

Table 3.11 Comparison of perception of skill improvement

Issues raised for questions	**pre test descriptive statistics measure**			**post test descriptive statistics measure**		
	Mean	**Mode**	**Std.D**	**Mean**	**Mode**	**Std.D**
I know the necessary practical details to start a company	3.82	4	1.84	4.45	5	1.60
I know how to develop entrepreneurial project	3.74	4	1.86	4.76	4	1.55

Where 1 is strongly disagree and while 7 represent strongly agree

The first step in the entrepreneurship process occurs when people perceive favorable business opportunities in their area. These individuals may or may not have considered becoming an entrepreneur before identifying an opportunity. People may also be encouraged by the belief they have the necessary capabilities to successfully start a venture. In this regard, the comparison of students whether they have the necessary practical details to start a company as well as whether they have the necessary know-how to develop entrepreneurial project indicate minimum before taking the course. However, slightly improvement has been observed after taking the course. Nonetheless, the existence of higher Std. deviation value indicates the existence of slight variation among different groups of students.

Table 3.12 the independent sample T- Test summary value

[a]

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	INt_pre	[b]	5	3.880	2.718	.023
	INt_post	[c]	5	8.071	14.977	.000
Intercept	INt_pre	24.307	1	24.307	17.026	.000
	INt_post	29.581	1	29.581	54.888	.000
Support	INt_pre	.902	1	.902	.632	.428
	INt_post	1.846	1	1.846	3.424	.067
Character	INt_pre	13.004	1	13.004	9.109	.003
	INt_post	25.594	1	25.594	47.490	.000
Experience	INt_pre	3.484	1	3.484	2.440	.121
	INt_post	.034	1	.034	.064	.801
Fam_background	INt_pre	2.926	1	2.926	2.050	.155
	INt_post	1.696	1	1.696	3.146	.079
Experience * Fam_background	INt_pre	1.115	1	1.115	.781	.379
	INt_post	1.722	1	1.722	3.196	.076
Error	INt_pre	162.749	114	1.428		
	INt_post	61.438	114	.539		
Total	INt_pre	2840.000	120			
	INt_post	5601.000	120			
Corrected Total	INt_pre	182.149	119			
	INt_post	101.794	119			

Weighted Least Squares Regression - Weighted by Change

R Squared = .107 (Adjusted R Squared = .067)

R Squared = .396 (Adjusted R Squared = .370)

In sum, considering the descriptive statistics measure and selected values of independent T Test value as depicted in the above table suggest the following. Students with prior business engagement / experience as well as with families owning and running a business seems to exhibit very slightly higher level of entrepreneurial intentions as compared to other students with adjusted R Square value of 0.370.

Table 3.13: one sample T- Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
INt_pre	336	4.9196	1.02627	.05599
INt_post	336	4.9226	1.00445	.05480
Support	336	3.8333	1.19285	.06508
Character	336	4.7798	.90058	.04913

Generally considering the perceptual response of the students taken altogether has shown no significant change in intention is observed (pre intention mean 4.9196 and post intention mean of 4.9226 with std. Deviation of 1.00445 and stander error of mean value of 0.05480 respectively) after taking the course.

Table 3.14 one sample T- Test 2

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
INt_pre	87.870	335	.000	4.91964	4.8095	5.0298
INt_post	89.833	335	.000	4.92262	4.8148	5.0304
Support	58.906	335	.000	3.83333	3.7053	3.9613
Character	97.286	335	.000	4.77976	4.6831	4.8764

The one sample T test score value after taking the course has shown only slight change in value. At 95% confidence interval the mean difference value after taking the course is almost remained the same. With regard to the value related to support system, almost the majority of students' responses attest that the overall societal perception towards their engagement in entrepreneurship as career choice is not positively perceived.

Table 3.15: one sample T-test 3

Group Statistics

	Do you have any previous work/ business Experience	N	Mean	Std. Deviation	Std. Error Mean
INt_pre	yes	74	4.9730	1.07235	.12466
	no	262	4.9046	1.01448	.06267
INt_post	yes	74	5.1622	.93672	.10889
	no	262	4.8550	1.01424	.06266

Students with prior business experience and students whose family own and run business has shown slightly increase in intention after taking the course students with prior business experience groups has shown slightly higher entrepreneurial intention (mean value before taking the course 4.973 and mean value after taking the course 5.1622 with Std. deviation value of 0.963). However, the existence of higher standard deviation limits generalization of the general impression to all groups of students.

Table 3.16: Independent sample T- test 1

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
INt_pre	Equal variances assumed	.169	.681	.506	334	.613	.06839	.13525	-.19766	.33445
	Equal variances not assumed			.490	112.559	.625	.06839	.13953	-.20805	.34483
INt_post	Equal variances assumed	.000	.993	2.339	334	.020	.30720	.13136	.04881	.56559
	Equal variances not assumed			2.445	125.500	.016	.30720	.12563	.05857	.55583

Table 3.17 Entrepreneurial intention vs. family with earlier business experience

Group Statistics

	Do your families own and run their own business	N	Mean	Std. Deviation	Std. Error Mean
INt_pre	yes	186	4.9140	1.10190	.08080
	no	139	4.8849	.91746	.07782
INt_post	yes	186	5.0215	.96398	.07068
	no	139	4.8201	1.05124	.08916

Similarly, a student whose family own and run business has shown slightly higher intention level change after taking the course (from 4.914 to 5.0215 with the Std. value of 0.96 with standard error of 0.07068).

3.6 Summary of the major finding

Students have also regarding entrepreneurship as one of the career option. This suggests the existence of positive attitude towards entrepreneurship. However, having positive attitude alone cannot result in creating genuine entrepreneurial intention to start a venture.

The attitudes towards entrepreneurship even before taking the course are moderately high. The overall T test result value after taking the course entrepreneurial intention remained unchanged with except with very slight variation observed among male and female students; students with prior business experiences ; and students who come from families who own and run businesses . In this regard, the perceptual responses suggest that although male students have shown higher intention even before and after taking the course compared to female students; the rate of intention change after taking the course is relatively higher among female students. Similarly, students who had prior business engagement and who come from families' owning and running a business has shown slightly higher increment in intention after taking the course. However , the overall impression indicate that although most students positively considered entrepreneurship as career option; the majority of the student have expressed no immediate intention to pursue entrepreneurship as most preferred career option immediately after their graduation.

On the other hand, although most students strongly claim they posses some basic capabilities to start up a business, still they consider their closest families/ relatives/ friends are not encouraging their engagement in entrepreneurship as the preferred career choice.

If humans are not engaged in entrepreneurship by accident, (i.e. they do it intentionally); it suggests that somehow entrepreneurship can be thought. The outstanding question will be how to teach entrepreneurship so that it will result in higher entrepreneurial intention. In sum, ideally education about entrepreneurship aims at developing, constructing and studying the theories referred to the entrepreneurs, the firm creation, the contribution of entrepreneurship to economic development, the entrepreneurial process and the small and middle sized firms while education for entrepreneurship has the objective of developing and stimulating the potential entrepreneurs. As a result, universities and other educational institutions are expected to graduate students who are well equipped with entrepreneurial vision. To the contrary, entrepreneurship education in Ethiopian universities seems to educate about entrepreneurship and enterprise rather than educating for entrepreneurship.

For entrepreneurship education to bring the desired impact on the behavior and attitude of students, academia needs to have a better understanding of business. This also implies that entrepreneurship cannot be taught effectively using the same method used in teaching management and business courses. As a result, mainstream management or business lecturers may not appropriately provide entrepreneurships education unless they are equipped with how to teach the course in ways that are effective. The training of teachers is therefore a critical element of the development of effective enterprise education initiatives. Creating entrepreneurial students with an entrepreneurial mindset, skills and knowledge requires entrepreneurial staff and educational programs, embedded in an entrepreneurial institution.

The current content and teaching methods are not adequate for creating more entrepreneurial students, are offered too late in the study program, and the importance of these courses is downplayed by staff and students. Even if students may not plan to run / own their own business immediately after graduation, entrepreneurship education may help to develop creative thinking, innovative capacity improvement in self-esteem and responsibility.

Attitude measures assess societal impressions about entrepreneurship as a career choice and whether media affords to give entrepreneurs high status and positive attention. These perceptions assess the visibility and attractiveness of entrepreneurship.
Positive views on these measures can influence the willingness of individuals to become entrepreneurs, but also the likelihood that others in society will support their efforts, with some possibly becoming stakeholders such as investors, suppliers, customers and advisors.

In sum, based on the findings of the study the majority of the students have positive attitude towards entrepreneurship as career option. However, the current course offering for students in both University have not brought about change in entrepreneurial intention. This suggests either of the curriculums or the method of teaching of the course is not compatible enough to result in change in entrepreneurial intention among students.

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Annex

Annex 1

Annex table 1: summary of major statistical measures

[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.352	[b]	2.000	314.000	.000
	Wilks' Lambda	.648	[b]	2.000	314.000	.000
	Hotelling's Trace	.543	[b]	2.000	314.000	.000
	Roy's Largest Root	.543	[b]	2.000	314.000	.000
Support	Pillai's Trace	.055	[b]	2.000	314.000	.000
	Wilks' Lambda	.945	[b]	2.000	314.000	.000
	Hotelling's Trace	.058	[b]	2.000	314.000	.000
	Roy's Largest Root	.058	[b]	2.000	314.000	.000
Character	Pillai's Trace	.367	[b]	2.000	314.000	.000
	Wilks' Lambda	.633	[b]	2.000	314.000	.000
	Hotelling's Trace	.581	[b]	2.000	314.000	.000
	Roy's Largest Root	.581	[b]	2.000	314.000	.000
Experience	Pillai's Trace	.004	[b]	2.000	314.000	.499
	Wilks' Lambda	.996	[b]	2.000	314.000	.499
	Hotelling's Trace	.004	[b]	2.000	314.000	.499
	Roy's Largest Root	.004	[b]	2.000	314.000	.499
Fam_background	Pillai's Trace	.005	[b]	2.000	314.000	.481
	Wilks' Lambda	.995	[b]	2.000	314.000	.481
	Hotelling's Trace	.005	[b]	2.000	314.000	.481
	Roy's Largest Root	.005	[b]	2.000	314.000	.481
Gender	Pillai's Trace	.019	[b]	2.000	314.000	.051
	Wilks' Lambda	.981	[b]	2.000	314.000	.051
	Hotelling's Trace	.019	[b]	2.000	314.000	.051
	Roy's Largest Root	.019	[b]	2.000	314.000	.051
Experience * Fam_background	Pillai's Trace	.005	[b]	2.000	314.000	.489
	Wilks' Lambda	.995	[b]	2.000	314.000	.489
	Hotelling's Trace	.005	[b]	2.000	314.000	.489
	Roy's Largest Root	.005	[b]	2.000	314.000	.489
Experience * Gender	Pillai's Trace	.017	[b]	2.000	314.000	.066
	Wilks' Lambda	.983	[b]	2.000	314.000	.066
	Hotelling's Trace	.017	[b]	2.000	314.000	.066
	Roy's Largest Root	.017	[b]	2.000	314.000	.066
Fam_background * Gender	Pillai's Trace	.007	[b]	2.000	314.000	.338
	Wilks' Lambda	.993	[b]	2.000	314.000	.338
	Hotelling's Trace	.007	[b]	2.000	314.000	.338
	Roy's Largest Root	.007	[b]	2.000	314.000	.338
Experience * Fam_background * Gender	Pillai's Trace	.002	[b]	2.000	314.000	.781
	Wilks' Lambda	.998	[b]	2.000	314.000	.781
	Hotelling's Trace	.002	[b]	2.000	314.000	.781
	Roy's Largest Root	.002	[b]	2.000	314.000	.781

Design: Intercept + Support + Character + Experience + Fam_background + Gender + Experience * Fam_background + Experience * Gender + Fam_background * Gender + Experience * Fam_background * Gender

Exact statistic

Annex table 2: summary of selected statistical measures

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	INt_pre	[a]	9	1.618	1.562	.126
	INt_post	[b]	9	16.954	30.508	.000
Intercept	INt_pre	152.490	1	152.490	147.215	.000
	INt_post	10.925	1	10.925	19.659	.000
Support	INt_pre	.229	1	.229	.221	.638
	INt_post	10.084	1	10.084	18.146	.000
Character	INt_pre	4.981	1	4.981	4.809	.029
	INt_post	97.662	1	97.662	175.735	.000
Experience	INt_pre	.604	1	.604	.583	.446
	INt_post	.425	1	.425	.764	.383
Fam_background	INt_pre	1.496	1	1.496	1.444	.230
	INt_post	.024	1	.024	.044	.834
Gender	INt_pre	4.930	1	4.930	4.760	.030
	INt_post	.610	1	.610	1.097	.296
Experience * Fam_background	INt_pre	.982	1	.982	.948	.331
	INt_post	.244	1	.244	.440	.508
Experience * Gender	INt_pre	2.634	1	2.634	2.543	.112
	INt_post	1.526	1	1.526	2.746	.099
Fam_background * Gender	INt_pre	1.725	1	1.725	1.665	.198
	INt_post	.328	1	.328	.590	.443
Experience * Fam_background * Gender	INt_pre	.515	1	.515	.497	.481
	INt_post	.000	1	.000	.000	.987
Error	INt_pre	326.289	315	1.036		
	INt_post	175.056	315	.556		
Total	INt_pre	8149.000	325			
	INt_post	8244.000	325			
Corrected Total	INt_pre	340.849	324			
	INt_post	327.643	324			

R Squared = .043 (Adjusted R Squared = .015)

R Squared = .466 (Adjusted R Squared = .450)

Annex table 3: Anova test

ANOVA

				Sum of Squares	df	Mean Square	F	Sig.
INt_pre	Between Groups	(Combined)		163.745	8	20.468	35.397	.000
		Linear Term	Unweighted	53.464	1	53.464	92.460	.000
			Weighted	151.634	1	151.634	262.234	.000
			Deviation	12.111	7	1.730	2.992	.005
	Within Groups			189.085	327	.578		
	Total			352.830	335			
INt_post	Between Groups	(Combined)		148.663	8	18.583	32.096	.000
		Linear Term	Unweighted	52.440	1	52.440	90.573	.000
			Weighted	135.064	1	135.064	233.281	.000
			Deviation	13.599	7	1.943	3.355	.002
	Within Groups			189.325	327	.579		
	Total			337.988	335			
Support	Between Groups	(Combined)		47.446	8	5.931	4.518	.000
		Linear Term	Unweighted	7.459	1	7.459	5.682	.018
			Weighted	23.795	1	23.795	18.128	.000
			Deviation	23.651	7	3.379	2.574	.014
	Within Groups			429.220	327	1.313		
	Total			476.667	335			
Character	Between Groups	(Combined)		45.511	8	5.689	8.224	.000
		Linear Term	Unweighted	15.105	1	15.105	21.837	.000
			Weighted	38.290	1	38.290	55.354	.000
			Deviation	7.221	7	1.032	1.491	.169
	Within Groups			226.192	327	.692		
	Total			271.702	335			

Annex table 4: tests of between subjects effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	INt_post	[a]	7	38.244	178.477	.000
	Support	[b]	7	11.160	9.184	.000
	Character	[c]	7	15.374	30.731	.000
Intercept	INt_post	623.138	1	623.138	2908.085	.000
	Support	463.295	1	463.295	381.285	.000
	Character	669.146	1	669.146	1337.591	.000
Change	INt_post	265.078	1	265.078	1237.074	.000
	Support	52.875	1	52.875	43.515	.000
	Character	95.788	1	95.788	191.476	.000
INt_pre	INt_post	132.641	6	22.107	103.169	.000
	Support	54.322	6	9.054	7.451	.000
	Character	69.327	6	11.554	23.097	.000
Error	INt_post	70.283	328	.214		
	Support	398.549	328	1.215		
	Character	164.086	328	.500		
Total	INt_post	8480.000	336			
	Support	5414.000	336			
	Character	7948.000	336			
Corrected Total	INt_post	337.988	335			
	Support	476.667	335			
	Character	271.702	335			

R Squared = .792 (Adjusted R Squared = .788)

R Squared = .164 (Adjusted R Squared = .146)

R Squared = .396 (Adjusted R Squared = .383)

Annex 2 : Sample questionnaire

Adama Science and Technology University

Test on Entrepreneurial Intention

General Instruction

This test is designed to measure your entrepreneurial intention. Please just carefully read each items and give genuine response. The test has two parts. The first part is related to background information and circle the letter of your choice.

I. Background Information

1. Gender
    a. Male
    b. Female
2. Age category
    a. 18-21
    b. 22-25
    c. 25-28
    d. 29-32
    e. Above 32
3. Your educational background
    a. Business and Economics related
    b. Other social sciences fields related
    c. Engineering and natural science related
4. Where did you study your high school?(give your response in writing)
    a. Please specify your region _____
    b. Your zone _____
    c. Specify town /zone _____
5. Do you have any previous work / business experience?
    a. Yes
    b. No
6. If your response for question No. 5 is yes, who owned the business?
    a. Your own
    b. Your parents
    c. Your close relatives
7. Specify your religion

a. Orthodox Christian
b. Muslim
c. Protestant Christian
d. Catholic Christian
e. ‘ Waaqefattaa”
f. If other Specify_____

8. What is the source of family income?
    a. Farmer
    b. Private business
    c. Government employee
    d. If other specify_____
9. Can you estimate the annual income of your parents
    _____

10. Have you ever attended any entrepreneurship course or training before?
    a. Yes
    b. No
11. What is your cumulative GPA for the last semester? _____
12. Do you like the degree program you are currently studying?
    a. Yes
    b. No
13. Do your families own and run their own business?
    a. Yes
    b. No
14. Do you earlier business experience in managing either of business of your own or your families?
    a. Yes
    b. No

II. Likert scale based questions.

Please after carefully reading the questions / statements indicate the extent of your agreement for each question. Put a mark to the corresponding number of scales provided for each question while 1 is showing the strongly disagree and 7 showing strongly agree and the other values are values in between.

No.	Issues for question	Scales						
		1	2	3	4	5	6	7
1	My personal preference is to be well paid salaried worker after my graduation	Strongly Disagree						Strongly Agree
2	I have strong desire to own and run my own business following my graduation	Strongly Disagree						Strongly Agree
3	Being an entrepreneur implies more advantages than disadvantage to me	Strongly disagree						Strongly Agree
4	Starting a business is much more desirable than other career opportunities I have	Strongly disagree						Strongly Agree
5	If I have the opportunity and resources, I would like to start my own business	Strongly disagree						Strongly Agree
6	Being an entrepreneur would entail great satisfaction for me	Strongly disagree						Strongly Agree
7	Among various options, I would rather be an entrepreneur	Strongly disagree						Strongly Agree
8	I intend to own and run my own business immediately after finishing my degree	Extremely unlikely						Extremely likely
9	My closest family members think that I should pursue a career as an entrepreneur	Strongly Disagree						Strongly agree
10	My colleagues or class-mates think that I should pursue a career as an entrepreneur	Strongly Disagree						Strongly agree
11	My close families and friends strongly appreciate if I take a risk to open my own company than become paid employee	Strongly Disagree						Strongly agree
12.	Entrepreneurial activity clashes with the culture in my country	Strongly Disagree						Strongly agree
13	Many people consider hardly acceptable to be an entrepreneur	Strongly disagree						Strongly agree
14	Entrepreneurial activity is considered too risky to be worth while	Strongly disagree						Strongly agree
15	I seriously consider to create and run my own company	Strongly disagree						Strongly agree
16	I am ready to make anything to own and run my own business	Strongly disagree						Strongly agree

17	I will make every effort to start and run my own company	Strongly disagree						Strongly agree
18	I am determined to create my own business in the future	Strongly disagree						Strongly agree
19	I have very seriously thought in starting my own company	Strongly disagree						Strongly agree
20	I have got the firm intention to start a firm some day	Strongly disagree						Strongly agree
21	I have a tendency to plan my future carefully	Strongly disagree						Strongly agree
22	I have never thought of searching for business start-up opportunities	Strongly disagree						Strongly agree
23	I spent a lot of my time learning about starting a firm	Strongly disagree						Strongly agree
24	It is totally improbable to create and run my own business	Strongly disagree						Strongly agree
25	When I start a new task or project, I search for as much information as possible before doing it	Strongly disagree						Strongly agree
26	I trust that I can succeed in everything that I want to do	Strongly disagree						Strongly agree
27	I do what is to be done, without waiting for others to tell me to do it	Strongly disagree						Strongly agree
28	I keep my promises	Strongly disagree						Strongly agree
29	I think it is a waste of time to worry about what I am doing with my life	Strongly disagree						Strongly agree
30	I change my opinion, if others strongly disagree with my view point	Strongly disagree						Strongly agree
31	I like challenges and new opportunities	Strongly disagree						Strongly agree
32	When something gets in my way, I keep trying	Strongly disagree						Strongly agree
33	It bothers me to waste time	Strongly disagree						Strongly agree
34	I use the help of important people to achieve my goals	Strongly disagree						Strongly agree
35	When I am doing something difficult, I am confident that I am going to succeed	Strongly disagree						Strongly agree
36	I dare to do new things, different from what I have done in the past	Strongly disagree						Strongly agree
37	I do things that other people consider to be risky	Strongly disagree						Strongly agree
38	To start a firm/ business and keep it working would be easy for me	Strongly Disagree						Strongly Agree
39	I am prepared to start a viable firm/company	Strongly disagree						Strongly agree

40	I can control the creation process of a new firm	Strongly disagree						Strongly agree
41	I know the necessary practical details to start a company	Strongly disagree						Strongly agree
42	I know how to develop an entrepreneurial project	Strongly disagree						Strongly agree
43	If I tried to start a company, I would have a high probability of succeeding	Strongly disagree						Strongly agree