



**Determinants of Students' Entrepreneurial Career Intentions: The mediating role of Entrepreneurship Education**

**(Empirical evidence from Addis Ababa university business students)**

*By*

*Mulusew Ashenf*

**A Thesis Submitted to the Graduate Programs of Addis Ababa University in Partial Fulfilment of the Requirements for the Degree of MSc in Management (Innovation Management & Entrepreneurship)**

**Addis Ababa Ethiopia**

**June 2020**

**Addis Ababa university faculty of business & economics**  
**Master of Science in Management (Regular Program)**

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**Statement of Certificate**

**This is to certify that Mulusew Ashenf has completed his thesis entitled “Determinants of Students’ Entrepreneurial Career Intentions: The mediating role of Entrepreneurship Education ”study on Addis Ababa university business students is his original work and is submitted for examination with my approval as thesis.**

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**Approved by Board of Examiners**

**As members of the Thesis Committee for this student, we approve the attached thesis**

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**DECLARATION**

I hereby declare that the thesis /Project work/entitled **“Determinants of Students’ Entrepreneurial Career Intentions: The mediating role of Entrepreneurship Education” study on Addis Ababa university business students** submitted to the School of Business and Economics, Addis Ababa University for the award of the Degree of Masters of science in management is based on my original research work carried out by myself under the supervision and guidance of Lakew Alemu (PhD). I declare that this study is my original work and has not been submitted earlier in full or in a part for the award of other similar degree, Diploma, Fellowship, Associate ship or any other similar titles to this or any other University or Institutions.

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## Acronyms

**EI:** Entrepreneurial Intention

**SE:** Self-Efficacy

**INN:** Innovativeness

**PR:** Proactiveness

**RT:** Risk-Taking

**ED:** Entrepreneurship Education

**TPB:** Theory of Planned Behaviour

**SEE:** Shapero and Sokol Entrepreneurial Event Model

**ESE:** Entrepreneurial self-efficacy

**GEM:** Global Entrepreneurship Mentor

**MENA:** Middle East and North Africa

**TEA:** Total Entrepreneurial Activity

**ANOVA:** Analysis of Variance

**SPSS:** Statistical Packages for Social science

**SD:** Standard Deviation

**IVF:** Variance Inflation Factor

**$\alpha$ ,  $\beta$ :** Coefficient of an equation

**$\epsilon$ :** Error

**df:** Degree of freedom

## ABSTRACT

*In difficult times when young educated workforce can't get a job, it is becoming challenge for nations. It is rather harder for developing countries, like Ethiopia, where governments are not having enough resources to support the unemployed workforce. For decades unemployment rate has been mounting in Ethiopia and become very critical issue to the country and there is no sign of decrements anytime soon. Self-employment and genuine intervention from every stakeholder are referred as the best solution to tackle the problem. This research aims to study the impacts of personal traits, behavioural, and demographic characteristics with a mediating role of entrepreneurship education on entrepreneurial intentions of university students of Ethiopia. This research will be a value addition in Ethiopia as well as sub-Saharan Africa scenario as it will provide knowledge base for entrepreneurship in the region and country. A quantitative, cross-sectional research design and simple random sampling was adopted. Data was collected from the sample of 263 university students. Descriptive statistics, correlation, regression analysis and hierarchical regression analysis was used to analyze the data with the aid of SPSS version 25. In addition to that, Baron and Kenny (1986) four step regression method was used to compute mediation analysis. The results shows, entrepreneurship education has a strong mediating effect between the aforementioned constructs and entrepreneurial intentions among university students. The entrepreneurial intentions of students are influenced directly by the students' entrepreneurship education, innovativeness, proactiveness, and risk taking and indirectly by self-efficacy. It can be concluded that self-efficacy can contribute significantly to development of students' entrepreneurial intention when mediated by entrepreneurship education. However demographical characteristics (Gender and Age), were insignificant with the intentions of students to become entrepreneur. The findings call for ministry of higher education and universities to emphasize more on entrepreneurship education in developing personal skills, attributes and behavioral aspects to realize the full potentials of students with regards to entrepreneurial intention. However, more in-depth studies need to be undertaken to fully understand determinants of entrepreneurial intention at a country and regional level.*

**Keywords:** *Entrepreneurial Intentions, Behaviour, Traits, Demographics, Entrepreneurship Education, and students.*

# CHAPTER ONE

## 1.0 Introduction

This study focuses on analyzing the mediating role of entrepreneurship education on the determinants of entrepreneurial intentions of Addis Ababa university business students. This chapter will discuss the background of the study, the problem statement, research question, objectives, significance, and Scope of the study.

## 1.1 Background of the study

"Entrepreneurship plays an important role in the creation and growth of businesses, as well as in the growth and prosperity of regions and nations"(Hisrich. Peters & Shepherd, 2017). As a result, considerable attention has been given regarding how new venture emerge and what motivate and drive people to establish their own business and become independent. According to, Romer (1997) Entrepreneurial activity is a catalyst that triggered the economic growth of a nations in the long run and entrepreneurship provides as a source of income ,when the country economy cannot provide enough job or other alternatives to generate income and provide a positive social value in place

According to, Collins et al . (2004), "due to today's global economic crises and technological advancement university education is no longer a passport to employment".Entrepreneurship influenced career positively provide individuals a lot of opportunities to became self-reliant, acquire greater financial payback and contribute towards overall economy through innovation, job enhancement, and economic development. In a developing country like Ethiopia, entrepreneurship acts like a catalyst that create a platform for economic growth, job creation and social adjustment (Ahmed et al., 2010).

Accompanied by rapid population growth and expansion of higher learning institutions, unemployment of university graduates is a major socio-economic problem in Ethiopia (Abebe, 2015). According to Teshome (2014) , due to unpredictable economic environment University and college graduates in the country struggling to secure employment in both public and private enterprises. Therefore, Entrepreneurship is a process which can amalgamate people, opportunities, and resources(Timmons & Spinelli, 2009).

Hisrich, Peters & Shepherd (2017) Entrepreneurial action is most often intentional. Entrepreneurs intend to seek opportunities, get into new markets, and provide new products and this is an intentional behavior. Motivational factors that can influence a behaviour can capture by intention; this shows how hard people are open to try and how much of an effort they are willing to exert to perform the behavior. In general, the more the intention to in behaviour, the more likely should be its execution.

Due to global competition, rapid technological advancement and increasing market economies, entrepreneurship became a hot issue and has become growing interest for researchers and governments, policy makers around the globe over the past decades. However, entrepreneurship research in Africa has not received much attention from academics although this is changing as Africa is emerging as an up and coming economic powerhouse (Dvouletý & Orel, 2019). Entrepreneurial intentions are highly regarded as an accurate determinant of entrepreneurial behaviour. Studies indicate that intentions play a crucial role in the decision-making process of establishing a business venture. Understanding entrepreneurial intentions will enable scholars to examine the process of venture creation dynamics (Mwange, 2018). This study attempts to critically review the antecedents to entrepreneurial intentions in respect of behavioural and personality factors.

Learned (1992) one of the prominent scholars in entrepreneurial intention defines “intention to found” as “a conscious state of mind which directs attention towards the goal of establishing the new organization”. In addition, Hisrich, Peters & Shepherd (2017) defined entrepreneurial intentions the motivational factors that influence individuals to pursue entrepreneurial outcomes. “The decision to become an entrepreneur and create a new business is a deliberate and conscious decision that requires time, considerable planning and a high degree of cognitive processing” (Wilson et al, 2007). Therefore, the above definition elaborates that entrepreneurial intention predicts entrepreneurial behaviour which play an invaluable role in the decision to start a business venture. Unfortunately, many research and reports like (Abebe, 2015; Admasie, 2018; Herrington & Kelley, 2012) shows that entrepreneurial intention in Ethiopia is very low as compared with other countries.

According to, Herrington & Kelley (2012) study report indicates that, Entrepreneurial intentions are high on average in sub-Saharan Africa 53%, higher than any other region. However, Ethiopia is rated with low level of entrepreneurial intentions 24% as compared with the average in sub-Saharan Africa. Based on the above Survey, Ethiopia is one of the countries in the lower intention rate in the region, and this will have an implication on the universities operating in the country and on the overall economic performance of the country. Given the above Survey, Ethiopia is one of the countries in the lower intention rate, and this will have an implication on the universities operating in the country and on the overall economic performance of the country.

In this study the researcher investigates the determinates of students' entrepreneurial career intention. Therefore, depending on the theoretical and empirical review conducted, the researcher proposed four potential antecedent variables, which are: Risk Taking, Innovativeness, Self-Efficacy, and Proactiveness as a predictor of entrepreneurial intention and entrepreneurship education as a mediating variable which influence the relationship between the dependent variable (entrepreneurial intention) and the four independent variables identified. By so doing, the research explains pertinent factors that will help university students to build their own business and become self-employed.

## **1.2 Statement of the problem**

In hard times when educated persons can't get jobs, it is becoming challenge for states. It is rather harder for developing countries, like Ethiopia, where governments are not having enough resources to support the unemployed workforce. For decades unemployment rate has been mounting in Ethiopia and become very critical issue to the country and there is no sign of decrements anytime soon. Self employment, Entrepreneurship, and genuine intervention from every stakeholder are referred as the best solution to tackle the problem.

According to Trading Economics global macro models and analysts' expectations, Unemployment Rate has increased drastically in Ethiopia from 16.90% in 2016 to 19.10% in 2018 and projected to trend around 19.40 percent in 2020 (<https://tradingeconomics.com/ethiopia/gdp>).

Entrepreneurship is considered as one of the emerging fields among the researchers and has created interest in academia and policymakers (Shane & Venkataraman, 2000). There are plenty

of studies on those periods, yet few has done on the area in Ethiopian setting; so, there is much more to discuss and clarify on the concept of entrepreneurial intention. Thus, the researcher believes this paper contribute to clarify and add knowledge on the literature of entrepreneurial intention specifically on drivers of entrepreneurial intention.

As indicated by the GEM 2012 survey of ten the sub- Saharan countries, Entrepreneurial intentions are high on average in sub -Saharan Africa (53%),higher than any other region compare to Latin America and Caribbean (34%),MENA (26%),Asia pacific and south Asia (17%),European union and united states (13%),and non-European union (14%). However, Ethiopia is rated with low level of entrepreneurial intentions (24%) next to south Africa (12%) compare to Uganda(79%),Botswana (72%),Malawi and Angola (70%),Ghana (60%),Zambia(55%),Namibia(45%),and Nigeria (44%) which clearly indicates Ethiopia has some work to do to improve the level of entrepreneurial intention ,because they are strongly associated with actual entrepreneurial behaviour.

In addition, compare with sub -Saharan Africa total entrepreneurial activity (TEA); Ethiopia has the lowest at the rate of 27 per cent in the region according to year 2012 GEM report as indicated in the study of (Herrington & Kelley, 2012).Therefore, Ethiopia as one of the countries with low level of intention and total entrepreneurial activity in the region ; the issue of entrepreneurial intention and TEA will have an implication on the university students in the country and on the overall economic performance of the country.

Entrepreneurship models have typically been based on less robust, less predictive approaches using only personality traits, demographics, or attitudinal approaches (Krueger & Carsrud, 1993).Accordingly, it is appropriate to integrate variables from a well-known other intention models like Ajzen's theory of planned behaviour (TPB) and Shapero's model of the 'entrepreneurial event' (SEE) to study entrepreneurial intention.

The behavioural approach, TPB and SEE is indeed a good and useful model to study entrepreneurial intention: however, extending the basic model by adding a new variable from personality trait would be appropriate and does makes sense. The variable self-efficacy closely related with both personality, behavioural, and environmental factors. Therefore, this study is

positioned on both personality and behavioural approach by incorporating or examining the mediating role of entrepreneurship education on the antecedents of entrepreneurial intentions.

“Mediator is a qualitative or quantitative variable that shows the chain of effect and relation between an independent or predictor variable, mediating variable, and a dependent or criterion variable” (Baron and Kenny, 1986). The mediating effect of entrepreneurship education has not been previously investigated with the exception of the studies conducted by Ertuna & Gurel (2011) on students studying business and engineering and Gurel, Altinay, & Daniele (2010) on tourism students and Thompson et al. (2010) on male students as cited by (Ertuna & Gurel, 2011). Moreover, the mediating effect of entrepreneurship education has not been previously investigated completely in Ethiopia. Therefore, this study fills this gap by considering the mediating effect of entrepreneurship education on both personality and behavioural approach on intentions of students or potential entrepreneurs.

In the process of reviewing literature we observed that, Entrepreneurial intentions has been extensively researched in Asia and western countries in the past decades and continues to be of interest to researchers. We also realized that there are very few researches in Africa specifically in Ethiopia on this domain. However as per our review we never come across a research on antecedent of entrepreneurial intentions of business students in Ethiopia with mediating variable, Therefore this area gap will make this study unique.

Despite various studies conducted in different countries on antecedents of entrepreneurial intention; Most of these studies were conducted in a non-Ethiopian setting. So, it is appropriate to conduct the study with Ethiopian context. The empirical evidence available in the country such as (Abebe, 2015; Admasie, 2018; Desalegn Fantaye, 2019; Gerba, 2012) which studies the entrepreneurial intention fail to include important variables such as Risk Taking, Innovativeness, and Proactiveness as determinates of entrepreneurial intentions.

Therefore, those variables are worthy to incorporate in determining the factors of entrepreneurial intention. Thus, the researcher has tried to apply a broader perspective on antecedent of entrepreneurial intention through including the mediating role of entrepreneurship education to advance the limitation of the mainstream direct relationship between the antecedents of

entrepreneurial intention (independent variable) and entrepreneurial intention as dependent variable.

### **1.3 Research questions**

This research will give answer for the following research questions.

1. What are the Determinants of business Students' Entrepreneurial Career Intentions of Addis Ababa University?
2. Does Entrepreneurship Education will mediate the relationship between Independent variables (Risk Taking, Innovativeness, Self-Efficacy, and Proactiveness) and Entrepreneurial intentions?

### **1.4 Objective of the study**

#### **1.4.1 General objectives**

The general objective of the study is to investigate the Determinants of Students' Entrepreneurial Career Intentions and the mediating role of entrepreneurship education.

#### **1.4.2 Specific objective**

The study has the following specific objectives:

- ✓ To investigate whether proactiveness has a significant effect on entrepreneurial intention of business students of Addis Ababa University.
- ✓ To identify whether innovativeness has a significant effect on entrepreneurial intention of business students of Addis Ababa University.
- ✓ To investigate whether risk taking has a significant effect on entrepreneurial intention of business students of Addis Ababa University.
- ✓ To identify whether self-efficacy has a significant effect on entrepreneurial intention of business students of Addis Ababa University.
- ✓ To discover the mediating role of entrepreneurship education on the relationship between Independent variables (Risk Taking, Innovativeness, Self-Efficacy, and Proactiveness) and Entrepreneurial intentions.

## **1.5 Significance of the study**

According to Kirby (2004), “in order to prepare students for the challenges of the entrepreneurial climate of the twenty-first century, students need to develop personal skills, attributes and behavioral patterns that enhance their entrepreneurial capabilities”.

Therefore, the finding of the study will offer valuable directions and insight for those academics, educational policy developer, and government officials who formulate, deliver and examine the fruitfulness of education systems of the universities in the country and make the necessary changes accordingly to advance the entrepreneurial mindset of university students. Moreover, this is crucial to a country like Ethiopia which aims to create and encourage an entrepreneurial culture to maintain its fast-economic growth and minimize unemployment issue in the country.

In addition to the above-mentioned benefits, this research will also add value in understanding the concept of entrepreneurial intention of business students in Ethiopian specially Addis Ababa university. This study is only a starting point in Ethiopian setting. To fully understand the antecedents of entrepreneurial intentions, more in-depth research would need to be undertaken and this study serve as a pathway for other researchers who want to make further study on the area afterwards.

## **1.6 Scope of the study**

Plenty of research has done on the antecedents of entrepreneurial intention using different theories and models. But this paper is limited to four variables namely Risk Taking, Innovativeness, Self-Efficacy, and Proactiveness proposed as antecedent of entrepreneurial intention.

Different scholars emphasized that the importance of entrepreneurial intention is Nationwide and, in every industry, but this study will concentrate on the entrepreneurial intention of Addis Ababa university business students only.

Researchers Ajzen', 1991 and Shapero's 1982 has tried to develop a model of entrepreneurial intention by stipulate different constructs of entrepreneurial intention and postulate their respective drivers for each construct. But this paper will try to expand this construct by adding some variable from personality trait which has far reaching impact in determining the entrepreneurial intention of business students.

## CHAPTER TWO

### 2.0 Literature review

#### 2.1 Definition and Concepts of Entrepreneurship

There is no a single universally accepted comprehensive definition of entrepreneurship. Entrepreneurship have been inconsistently defined by scholars and researchers, but they frequently contain similar elements, those are opportunity identification and recognition, novelty, organizing, creating and risk taking (Abebe, 2015).

Hisrich. Peters & Shepherd (2017), the prominent scholars on entrepreneurship defined “Entrepreneurship as the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independencies.” By articulating the risks of entrepreneurship (financial, psychic, social), this definition suggests a possible range of determinants that may encourage or discourage entrepreneurial intention.

Hisrich. Peters & Shepherd (2017) define Entrepreneurial Intention as the motivational factors that influence individual’s to pursue entrepreneurial outcomes. Entrepreneurial action is most often intentional. Entrepreneurs intend to pursue certain opportunities, enter new markets, and offer new products—and this is rarely the process of unintentional behavior. The motivational factors which can affect behaviours of people that shows how hard they are willing to try and to what extent they are planning to exert an effort to perform a certain behaviour can be captured by intentions .Generally, the stronger the intention to engage in a behaviour, the more likely should be its performance. Peoples have significant intentions to act when acting is perceived to be feasible and desirable.

Johnson (2001) defined entrepreneurship as a role in which An individual assumes responsibility and ownership in making things happen and an entrepreneur described as a person who has the ability to explore the environment, identify opportunities for improvement, mobilize resources and implement actions to capitalize on those opportunities (Mueller & Thomas, 2001).

## **2.2 Concepts, Theories and Models of Entrepreneurial Intention**

To clearly understand the concept of entrepreneurial intention well, analysing how each scholar conceptualizes the idea of entrepreneurial intention given the definition articulated by the scholars. Therefore, the different definition by different scholars they have been conceptualized entrepreneurial intention with their specific perspectives.

Entrepreneurship is a result of intentional and planned behaviour (Krueger, Reilly, & Carsrud, 2000). The well-known entrepreneurial intentions models (Icek Ajzen, 1991; Learned, 1992) proposes a three-dimensional model for establishing an organization. These are propensity to found, intention to found, and sense making. These three elements lead to start or not to start a business. “Entrepreneurial intention is the subjective thinking and mental state of entrepreneurs before they implement entrepreneurial behaviour (Krueger et al., 2000)”.

Learned (1992) defines “intention to found” as “a conscious state of mind which directs attention towards the goal of establishing the new organization” and claims that individuals with intention have a higher likelihood of starting than individuals with only propensity.

Propensity to found related to some psychological traits and background factors. According Learned (1992) some individuals have both psychological traits and background factors which make them more likely candidates to attempt to start their own businesses, but not all individuals have the potential to start a new venture.

Many Researchers discussed on the antecedents of entrepreneurial intentions while measuring their entrepreneurial intentions and propose different analyzing models, among this models, The Entrepreneurial Event Model by Shapero & Sokol (1982) and The Theory of Planned Behaviour by Ajzen (1991) are the most commonly used and representative model.

### **2.2.1 Ajzen’s Theory of Planned Behaviour Model (TPB)**

Ajzen (1991) theory of planned behaviour is one of the classical models developed and validated in social psychology and has been widely employed as a tool to understand a variety of behaviours and entrepreneurial intention. The TPB explains how the influences upon an individual affect an individual decision to follow a behavior. Within the TPB, the determinants

of behaviour are intentions to engage in that behaviour and perceived behavioural control (PBC) over that behaviour.

Ajzen (2002) indicate that the immediate antecedent of behavior is the intention to perform a given behavior and “Intention is a direct antecedent of real behaviour; and the stronger the intention for behaviour, the bigger the success of behaviour prediction or actual behaviour”.

Different research finding claims that intentions are the single best predictor of most planned behavior, including entrepreneurial behaviour ( Krueger et al.,2000;Iakovleva & Kolvereid, 2009; Kolvereid, Lakovleva, & Kickul , 2006).

According to, Ajzen (1991)Intentions represent a person's motivation and “conceptualized as an individual's conscious plan or decision to exert effort in order to engage in a behaviour”. Accordingly, Intentions are determined by three variables. The first is attitudes, which are an individual's overall evaluation of the behaviour. The second variable is subjective norms, which are an individual belief about whether others believe he or she should engage in certain behaviour. Lastly perceived behavioural control (PBC) measures the degree to which an individual perceives that the behaviour is under their personal control.

Ajzen (1991) theory of planned behaviourconstructs three conceptually independent determinants of intention.

- Attitude toward the behaviours
- Subjective norm
- Perceived behavioural control

### **Attitude toward the behaviour**

“Attitude toward the behaviour refers to the degree to which the individual holds a positive or negative personal valuation about being an entrepreneur”.It is the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behaviour in question (Icek Ajzen, 1991).

This construct emphasis on perceptions of the personal desirability of performing the behaviour and it depends on expectations and beliefs about personal impacts of outcomes resulting from the

behaviour. So, according to the TPB, the more favorable the attitude, the stronger should be an individual's intention to perform the behaviour under consideration (Icek Ajzen, 1991).

## **Subjective Norm**

Subjective norm is the view of an individual who influenced one another is important (Utami, 2017). According to, I Ajzen & Fishbein (1980) subjective norm defined as a specific behavioural prescription attributed to a generalized social agent. It's a person's perception that others prescribe, desire, or expect the performance or non-performance of a specific behaviour.

Ajzen ( 1991) one of the major constructs from the TPB explain Perceived Social Norms as the perceptions of what important people in respondents' lives think about performing a behaviour. It would also Included the individual's family expectations about the desirability of becoming an entrepreneur. It can also measure the perceived social pressure to carry out –or not to carry out- that entrepreneurial behaviour.

subjective norm regard important by individuals who suggest the individual to perform or not perform certain behaviours and motivation accompanied by a willingness to do or not do something that is considered important as cited by (Desalegn Fantaye, 2019). So, according to the TPB, the more favorable the subjective norm with respect to a behaviour, the stronger should be an individual's intention to perform the behaviour under consideration.

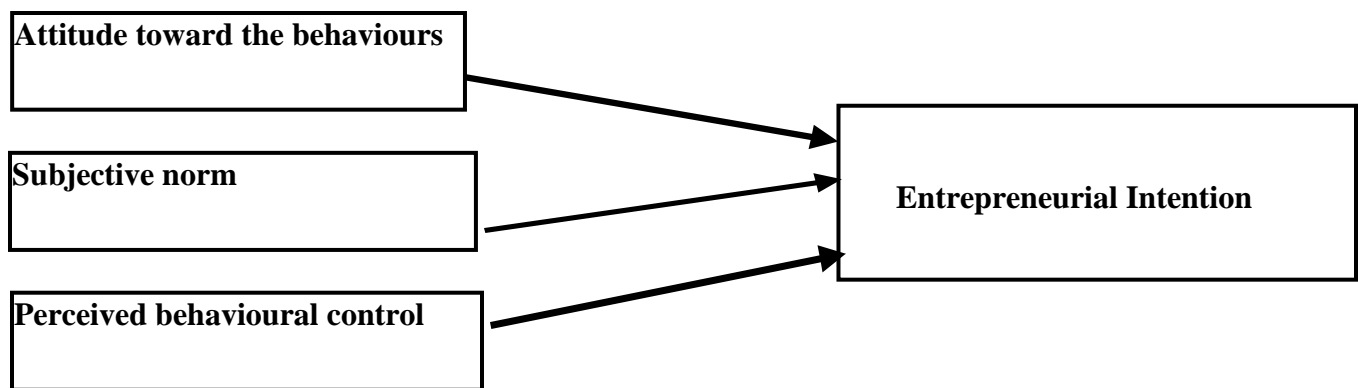
## **Perceived behavioral control**

Ajzen (2002) defined Perceived Behavioural Control as an individual's belief and confidence in his/her capability in performing as an entrepreneur and realizing control and success in entrepreneurial activity. Its the perception of the easiness or difficulty of becoming an entrepreneur).

Perceived behavioural control is closely related to self-efficacy and very similar to Shapero & Sokol (1982)'s vision about perceived feasibility, a consistent, significant predictor of career-related attitude and intentions (Icek Ajzen, 1991; Bandura, 1986). In all three case, the central point is the sense of ability regarding the fulfillment of firm creation behaviours. So, according to

the TPB, the greater the perceived behavioural control, the stronger should be an individual's intention to perform the behaviour under consideration (Desalegn Fantaye, 2019).

Generally, the relative importance of attitude towards behaviour, subjective norm, and perceived behavioural control in the determination of intention vary across behaviours and situations. Thus, in some applications only one of the variables have a significant impact on intentions, in others situation that more than one variable have significant implications on intentions, and in still others that all three predictors make impact on intentions.



**Figure 2.1: Theory of Planned Behaviour (Ajzen, 1991)**

The first is the attitude toward the behaviour which refers to the “degree to which a person has a favorable or unfavorable evaluation or appraisal of the behaviour in question”. The second predictor is a social factor termed subjective norm; it refers to the “perceived social pressure to perform or not to perform the behaviour”. The third antecedent of intention is the “degree of perceived behavioural control which refers to the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles”(I Ajzen, 1991).

### **2.2.2 Shapero and Sokol Entrepreneurial Event Model (SEE)**

Shapero and Sokol (1982) in the Entrepreneurial Event model (SEE) is another classical model of entrepreneurial intention indicates that intentions to start a business derive from a propensity “to act upon opportunities and from perceptions of desirability and feasibility”.

Shapero and Sokol (1982) Entrepreneurial Event model (SEE) postulates three conceptually independent determinants of intention.

- Propensity to act
- Perceived feasibility
- Perceived of desirability

### **Propensity to act**

Propensity to act is defined as “the personal disposition to act on one’s decisions, thus reflecting volitional aspects of intentions”. It is difficult to visualize well-formed intentions without the existence of propensity to act (Krueger & Carsrud, 1993).

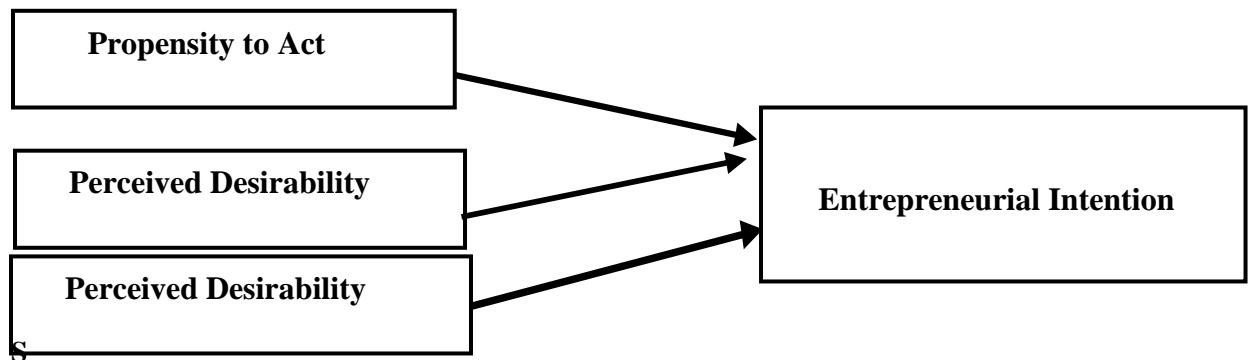
Summers (2000) stated propensity to act as someone has the psychological traits that make them likely candidates to attempt to become an entrepreneur upon a trigger event as cited by (Wang, Lu, & Millington, 2011). This triggering event might be displacement in one’s life path, but not everyone takes the initiative of starting a business the consequence depends on the psychological difference of the individual (Shapero & Sokol, 1982).

### **Perceived Feasibility and Perceived Desirability**

Perceived feasibility is “the degree to which one believes that he or she is personally capable of starting a business” (Krueger et al., 2000). This element in the SEE model is essentially the same as the element of “self-efficacy” in Ajzen’s Theory of Planned Behaviour model. Perceived of desirability defined as the personal attractiveness of starting a business, including both intrapersonal and extra personal impacts Shapero and Sokol (1982).

Perceptions of desirability and feasibility are the by-product social and cultural environments which are used to determine which measures will be considered and which action should follow (Shapero & Sokol, 1982).

According to Shapero & Sokol (1982), “SEE Model considers business creation as an event that can be explained by the interaction between initiative, ability, management, relative autonomy, and risk”. The model indicates that entrepreneurial intentions (EI) stems from the perception of feasibility and desirability, and this path is affected by the cultural and social context (Zhang, Duysters, & Cloudt, 2014).



**Figure. 2.2. Shapero and Sokol (1982) Entrepreneurial Event Model**

### **2.3 Drivers of Entrepreneurial intention**

There are many drivers of Entrepreneurial intention, but this study focuses on some of the most common determinants and their relation to the intention to become self-employed. Among the specific drivers most linked to the entrepreneurial phenomenon are the following: Innovativeness, proactiveness, risk taking, and self-efficacy. There is certain evidence of a positive relation between these dimensions and entrepreneurial intention of university students.

#### **2.3.1 Innovativeness**

Schumpeter (1990) defined entrepreneur as an innovator and Drucker (1985) suggests that innovation is the most basic role of entrepreneur and innovation is the specific tool of entrepreneurs in which they exploit change as utilized by (Gurel et al., 2010).

Innovation is the process of translating ideas, invention, and knowledge into goods or service that create new value in a creative way. Innovativeness is the ability and willingness of individuals to think differently, creatively, and recognize opportunities to produce novel and practical ideas, create new markets, introduce new products and services (Vuorio, Puumalainen, & Fellnhofer, 2018).

According to Robinson (1991) states that innovation in business is related to “perceiving and acting upon business activities in new and unique ways”. Plenty of research studies ensure that entrepreneurs, especially the successful entrepreneurs, are much more innovative than non-entrepreneurs and there is a close relationship between innovativeness and venture performance and also innovativeness is one of a major characteristic in defining the entrepreneurship

profile(Ahmed et al., 2010; Gürol & Atsan, 2006; Hisrich. Peters & Shepherd, 2017; Thomas & Mueller, 2000).In the study by Mueller & Thomas (2001) shows that innovation is a primary motive in starting a business venture .

On the basis of given literature above the following hypothesis can be derived:

H1: Innovativeness will be associated with the entrepreneurial intention of university students in establishing a business.

### **2.3.2 Proactiveness**

Proactive personality is the tendency to initiate and sustain actions that directly change the surrounding situation (Crant, 1995).Individuals with Proactive personality identify opportunities and act on them, show initiative, take direct action, and persevere until they have made a significant change (Sánchez, 2013). According to, Sánchez(2013) Proactiveness focuses on anticipating and preventing problems before they actually occur and an orientation to action that includes “a creative interpretation of norms and a high degree of persistence and patience for bringing change”.

Entrepreneurial proactivity is the potential of an individual ability and action orientation to complete a certain task.Proactivity shows a high level of energy, goal orientation and competitiveness of an individual (Leutner, Ahmetoglu, Akhtar, & Chamorro-Premuzic, 2014). Individuals with Proactive personality are confident and willing to take risks, persist in the face of difficult situations and are not deterred due to uncertainty or fear of failure (Sánchez, 2013).

According to Hu, Wang, Zhang, & Bin( 2018) proactive personality is also associated with entrepreneurial alertness. Otherwise speaking, Proactive personality can help a person to understand and release the environment ,recognize opportunity ,and make proactive moves that can create a significant change(Bateman & Crant, 1993).

Different studies show that the relation between proactive personality and entrepreneurial intention of self- employment are significantly higher (Sánchez, 2013). Plenty of research studies conformed the positive relation between proactiveness and entrepreneurial intention. These personalities have been considered as the key characteristics of an entrepreneur which show that individuals with proactive personality displays a significant and higher level of entrepreneurial intentions (Crant, 1996; Hu et al., 2018; Kumar & Shukla, 2019).

According to Iakovleva & Kolvereid (2009), proactive personality orientation has an important forerunner of entrepreneurial intention. Recent studies have also resulted in a positive relationship between proactive personality and entrepreneurial intentions (Chipeta & Surujlal, 2017; Crant, 1995, 1996; Hu et al., 2018; Mustafa, Hernandez, Mahon, & Chee, 2016).

On the basis of given literature above the following hypothesis can be derived:

H2: Proactiveness will be associated with the entrepreneurial intention of university students in establishing a business.

### **2.3.3 Risk taking**

Risk-taking propensity has been conceptualized by Sexton & Bowman-Upton (1990) as one's orientation toward taking chances in a decision-making situation. Risk-taking propensity refers to the willingness to take or avoid risks. Entrepreneurship has always been associated with risk-taking (Ozaralli & Rivenburgh, 2016; Sánchez, 2013).

According to Sánchez (2013) risk taking propensity is considered as one of the three dimensions of the so-called entrepreneurial orientation, together with proactiveness and innovation and it refers to "a subject's willingness to commit to sources of opportunity when there is possibility of failure". Some studies indicate that there is a greater risk propensity in individuals who founded their own companies than in persons running already existing businesses (Begley & Boyd, 1987).

Different studies indicate that there is a statistically significant relationship between risk taking and entrepreneurial intentions of university students (Ertuna & Gurel, 2011; Gurel et al., 2010; Ozaralli & Rivenburgh, 2016; Sánchez, 2013). Students with entrepreneurial inclinations had higher scores in risk-taking propensity compared to students with no such inclination (Gürol & Atsan, 2006). Another Research finding also provides evidence that individuals with a greater risk acceptance had stronger levels of entrepreneurial intention (Hmieleski & Corbett, 2008).

In the study by Zhao (2010) shows that risk propensity is the best predictor of entrepreneurial intentions among other entrepreneurial traits.

On the basis of given literature above the following hypothesis can be derived:

H3: Risk taking will be associated with the entrepreneurial intention of university students in establishing a business.

### **2.3.4 Self-Efficacy**

Bandura & Locke (2003) defined the concept self-efficacy as “one's beliefs in their abilities to perform a certain level of performance or desired outcomes”. He conceptualized “self-efficacy as that which influences situations that affect a person’s life”. Therefore, Self-efficacy has been a critical variable which is investigated in the cognitive study of entrepreneurial behaviour (Mwange, 2018).

Self- efficacy is a useful concept for explaining human behaviour as study reveals that it plays an influential role in determining an individual’s choice, level of effort, and perseverance (G. Chen, Gully, & Eden, 2004). According to Shane et al.( 2003)claims self-efficacy as a strong predictor of individual outcome in each activity and its validity to explain why people with equal skills may act differently. Self- efficacy can also be used to know why some individuals decided to work for others instead of becoming entrepreneurs/self-employed ,“since some individuals avoid entrepreneurial activities not because of their lack of ability but because they believe that they do not have such ability” (Mwange, 2018).

Individuals with high self-efficacy for a certain task are more likely to pursue and then persist in that task than those individuals who possess low self-efficacy (Bandura, 1978). Different studies show that self-efficacy in entrepreneurial behaviour are characterized by making differences between entrepreneurs, successful entrepreneurs, and non-entrepreneurs (Markman et al 2005). Entrepreneurial self-efficacy (ESE) is very important variable because it incorporates both personality as well as environmental factors and it is also considered as a strong predictor of entrepreneurial intentions and action (Bird, 1988).

Without ESE, it is unlikely that potential entrepreneurs would be sufficiently motivated to engage in the new venture creation process( Chen et al., 1998; Markman et al., 2005; Zhao, Hills, & Seibert, 2005).Perceived behavioural control is closely related to self-efficacy, a consistent, significant predictor of career-related attitude and intentions (Icek Ajzen, 1991).

Plenty Research carried out has successfully demonstrated the predictive power of perceptions of self-efficacy in the forming of entrepreneurial intentions, both because of their direct influence on them and their association with other variables of interest in the explanation of intentions of self-employment like environmental factors (Markman et al., 2005; Mwange, 2018b; Sánchez, 2013; Zhao et al., 2005). In the study by Chen et al., (1998) shows that Entrepreneurial self-efficacy enables people to differentiate entrepreneurs from others and it also correlates with the intention of owning a business., individual who believes on him or herself most capable of undertaking a business concern is more prone to implementing such behaviour than the one who doesn't feel able to do so.

Based on a given literature above the following hypothesis can be derived:

H4: self-efficacy will be associated with the entrepreneurial intention of university students in establishing a business.

## **2.4 The Role of Entrepreneurship Education as a mediating Factor**

Interest in developing entrepreneurship education expressed by politicians, high education institutions and students. Entrepreneurship education has been considered as one of the critical factors for the development of students' entrepreneurial intentions. However, the findings are not entirely conclusive (Küttim, Kallaste, Venesaar, & Kiis, 2014).

Dyer (1994) has claims that entrepreneurship courses, or training regarding start of new business, contributes towards starting a new business and it gives confidence and courage to them to become self-employed. Especially, high level/advanced business educations are more likely to increase an individual's propensity toward entrepreneurship. Through developing the learning capabilities and potentials of individuals, entrepreneurship education also increases entrepreneurial efficiency and successful firm growth (Ertuna & Gurel, 2011). According to Do Paço, Ferreira, Raposo, Rodrigues, & Dinis (2013) "Entrepreneurship Education has played an important role in promoting entrepreneurial intentions and furthering the development of enterprising citizens". Thus, education and training help to develop management knowledge, psychological attributes, and behaviours associated with entrepreneurship.

Krueger, Jr. & Brazeal (2018) also suggest that education in entrepreneurship can improve the perceived feasibility for entrepreneurial business through increased knowledge base of students, confidence building and promoting self-efficacy. Based on their finding Entrepreneurs are made, not born. “They are made through a perception-driven enactive process that begins with forging a potential for entrepreneurship”. Therefore, entrepreneurship education can assist them in the process to seize opportunities when the environment presents them through empowering potential entrepreneurs.

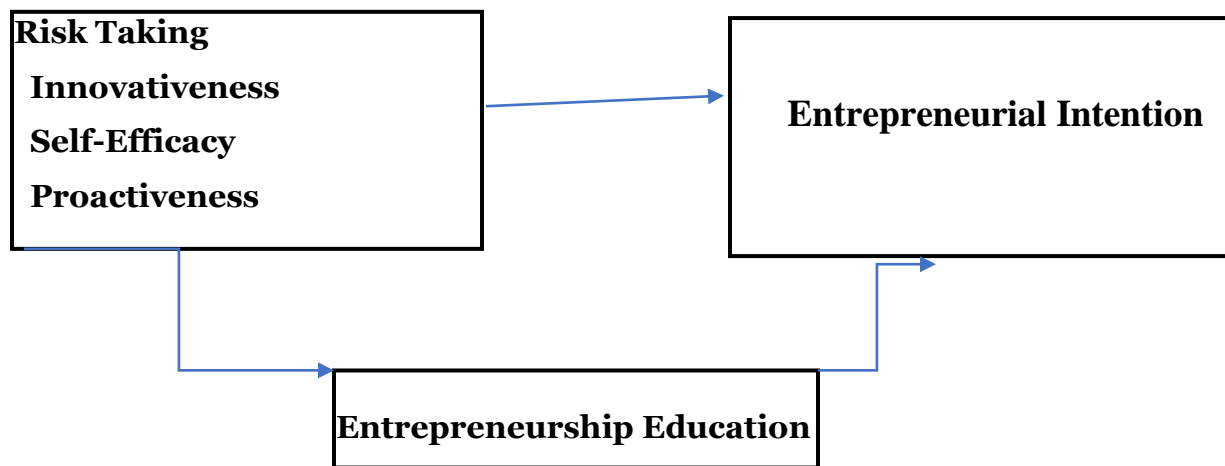
According to Ertuna & Gurel ( 2011) the available research studies manly focused on investigating the direct influence of entrepreneurship education on entrepreneurial intention. Therefore, they are ignoring the possible mediating effect of entrepreneurship education on entrepreneurial intention. Entrepreneurship education shows a positive influence and the findings suggest that after completing entrepreneurship education, with confidence and risk-taking propensity, and self esteem inherent in students with entrepreneurial intentions of students show a higher intention in establishing a business (Ertuna& Gurel, 2011; Kunday & Çakir, 2014). There has been significant amount of research about the impact of entrepreneurship education on entrepreneurial intention (Ertuna & Gurel, 2011). There are also some studies which contradict the impact of entrepreneurship education on entrepreneurial intention. therefore ,some researchers claim that entrepreneurship education lessens the entrepreneurial desire of the individual(Krueger et al., 2000). There are others plenty of studies which supports people’s entrepreneurial intention increases with entrepreneurship education (Do, 2015; do Paço et al., 2013; Ertuna & Gurel, 2011; Israr & Hashim, 2017; Krueger, Jr. & Brazeal, 2018; Küttim et al., 2014). However, attending a course on entrepreneurship will not necessarily guarantee an entrepreneurial orientation, provide entrepreneurial abilities or result in students choosing entrepreneurship as a career (Co & Mitchell, 2006). Entrepreneurship in Ethiopia has moved to the upper levels of political agenda and education of entrepreneurship to all University students irrespective of their discipline and has become a priority item in public policy. Starting from 2019, the Ethiopian Ministry of Higher Education has included entrepreneurship courses into their pool of common courses to be offered.

Based on a given literature above the following hypothesis can be derived:

H6: Entrepreneurship Education will be mediating the relationship between antecedent variables (Innovativeness, Proactiveness, Risk-Taking, and Self-Efficacy) and Entrepreneurial Intention of university students in establishing a business.

## 2.5 Theoretical and Conceptual Framework of the study

After reviewing of related theoretical and empirical literatures, the researcher identified four proposed determinants of Entrepreneurial Intentions and one mediating Variable. Therefore, based on the overall review of related literatures the following Research framework in which this peculiar study will apply developed.



**Figure 2.3, Source: Own constriction-based review of literature**

As the model indicates we have four paths to show the relationship among variables. The first path shows the direct relationship between the antecedent variables and entrepreneurial intention. Thus, independent variables which directly relate are innovativeness, proactiveness, risk taking, and self-efficacy to entrepreneurial intention.

Secondly, the model also shows that the direct effect or relation between the independent variables and mediating variable (entrepreneurship education), which we take the mediating variable as a dependent variable (entrepreneurship education). Thirdly, the model also shows that the direct effect or relation between the mediating variables (entrepreneurship education) and dependent variable (entrepreneurial intention).

Finally, the last path shows the estimated effect of antecedent's variable to hypothesized mediating variable and from which to the dependent variable. Therefore, the effect of antecedent variables on entrepreneurial intention will be regressed indirectly through the mediating variable. It is hypothesized that when individual exposure to entrepreneurship education differs, the effect of those antecedent variables on entrepreneurial intention could change.

## **CHAPTER THREE**

### **3.0 Research Design and Methodology**

This chapter will discuss the methodology used to examine factors affecting the entrepreneurial intentions of final year undergraduate business students at Addis Ababa University. This section will present methodology; Research Design and approach on how the research systematically answers the objective of the study. Accordingly, in this part of the study the researcher will provide an overview of the target population, research design, data sources and types, data collection methods, instrument and measurement of variables, sample design, sampling frame, sample size determination, data processing and analysis, that will be carry out under this study.

### **3.1 Research Design and approach**

In this study a Descriptive research design will be employed to locate business student's entrepreneurial intention and to draw conclusion regarding entrepreneurial intention, innovativeness, risk taking, self-efficacy, proactiveness, entrepreneurial education, and demographic characteristics as well.

Research approaches are plans and procedures for research that cover the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. The selection of a research approach is based on the nature of the research problem or issue being addressed, the researchers' personal experiences, and the audiences for the study (Creswell, 2014).

According to Creswell (2014) a quantitative approach is one in which the investigatory primarily uses postpositive claims for developing knowledge. For instance, cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories, employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistics data. According to him certain types of social research problems call for specific approaches. For instance, if the problem calls for: the identification of factors that influence an outcome or understanding the best predictors of outcomes, then a quantitative approach is the best.

Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity. This approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and

rigid fashion (Kothari, 2004). Therefore, based on the nature of data, the problem considered, and pre-determined objectives in this study, the research design for this study is a cross-sectional descriptive survey type by applying quantitative research approach.

The rationale for the choice of quantitative research with cross sectional and descriptive survey method because this kind of research approach will provide relevant data about issue/ this topic and support to achieve the objective of the study. Also, since it involves collecting and analyzing numerical data and applying statistical tests this kind of approach is appropriate to the research problem identified for the study.

### **3.2 Data Source and Data Collection Instruments**

This study will use both primary and secondary data. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2004). Primary data will be collected directly from graduating business student's of 2020/21 academic year by using close ended questionnaire to be completed by sample respondent. The questionnaire will be designed to capture all the necessary variables that are used to establish the determinants of entrepreneurial intention. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process (Kothari, 2004). Secondary data will be collected from the different reports and documents for different purpose in the research.

### **3.3 Population and Sampling Size**

#### **3.3.1 Target Population**

The population of the study is the graduating business student's of 2020/21 academic year at Addis Ababa University. The population for a study is that group (usually of people) about whom we want to draw conclusions (Babbie, 2012). According to the information from the registrar office of the university there are four different departments under the collage of business and economics of the university. Those are department of Management, Public Administration and Development Management, Economics, and Accounting and Finance. Due to time and resource constraint and the type of data to be collected it is not efficient to use census. Thus, selecting a sample is necessary. Multi- stage sampling method is used to select the sample. First, given this the target population for the study collage of business and economics is

systematically selected as to represent the Addis Ababa university business students purposively from a total two business collages. Second from the selected collage, there are a total of 4 departments, in which all of them are considered and 263 graduating business students from four departments are selected and will be approached and asked to choose the statement that describes their feeling about future entrepreneurial activities. The questionnaires will be collected immediately after filled out by the students in the classroom. The sampling choice is coherent because of the students who learn entrepreneurship courses and have the experience of making a business plan are prospective entrepreneurs(L. Chen, 2013).

**Table 3.1: List of Departments with Their Respective Graduating Students**

Departments	Number of Students	
	Regular	Extension
Management	112	127
Accounting and Finance	108	260
Public Administration & Development Management	49	5
Economics	81	24
<b>Total Number of Students</b>	<b>350</b>	<b>416</b>

### 3.3.2 Sample Size Determination

To draw the sample from the Target population, the sample size determination formula of Yamane,1967 as utilized by Israel (1992) will be used.

$$n=N/ [1+N (e^2)]$$

Where: n = Sample size

N = Population size

E = Level of precision or acceptable sampling error (0.05) Therefore our sample size that can fit our target population is computed as follows:

$$\text{Sample size (n) } =766/ [1+766(0.05)^2]$$

$$n= 263$$

Based on the above formula from a total population of the study 766 students; a sample size of 263 graduating class business students of Addis Ababa university are selected.

### 3.3.3 Sampling Technique

According to Kothari (2004) a sample design is a plan for obtaining a sample from a given population and the technique or the procedure the researcher would adopt in selecting items for the sample. If a population from which a sample is to be drawn constitutes a homogeneous group, Simple random sampling is most appropriate sampling technique to obtain a representative sample. Thus, for the purpose of this study simple random sampling will be used to select a representative sample from identified target population.

Once the sample size was determined the next step was determining the number of respondents that are going to be selected from each department. In order to do that a proportionate sampling technique will be used. In this technique the number of sampling unit drawn from each department in proportion to the population size of that department. The following formula is used to compute samples from each department.

$$n_h = (N_h / N) * n$$

Where  $n_h$  is the sample size for department h,  $N_h$  is the population size for department h,  $N$  is total population size, and  $n$  is total sample size.

**Table 3.2: Proportionate Sample Size**

Departments	Number of Students			
	Regular	PS	Extension	PS
Management	112	38	127	44
Accounting and Finance	108	37	260	89
Public Administration & Development Management	49	17	5	2
Economics	81	28	24	8
<b>Total Number of Students</b>	<b>350</b>	<b>120</b>	<b>416</b>	<b>143</b>

\*PS- Proportionate sample

### **3.4 Data Collection Method**

The method of data collection explains how all the data is gathered or collected. There are different types of data collection methods. These are census, experiment, survey, and observation. For this study, sample survey method with structured questionnaires that are compiled for the purpose of this research, with five-point Likert scale will be used. According to Creswell (2014) a survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population and from sample results, the researcher can generalize or make claims about the population.

### **3.5 Variable Measurement**

A structured questionnaire developed and compiled/adopted to measure graduating business students' entrepreneurial intentions including proactiveness, risk-taking propensity, innovativeness, entrepreneurship education, and self-efficacy. All these items are adapted from well-known scales and measured using a five-point Likert scale between one (strongly disagree) and five (strongly agree). The survey also included items to measure entrepreneurial intentions, and demographics characteristics.

The first section of the questionnaire will contain the demographic characteristics of the respondents in which respondents will be asked to provide information about their gender and age. The second section of the questionnaire contains questions related with each variable in the study.

To operationalize the variables, entrepreneurial intention questions is adopted from Kolvereid 1996 as utilized by (Liñán & Chen, 2006). The dependent variable (Entrepreneurial intentions) is measured with 6 items by the respondent's judgments about the likelihood of establishing his/her own business. Respondents will be asked whether they have the intention to establish their own businesses or not (e.g., in the foreseeable future I will start my own business).

Risk-taking propensity will be measured by a 5-item reduced version of the Risk Orientation Questionnaire (ROQ) developed by Rohrmann (1997 & 2001). Items include: "I don't like to put something at stake, I would rather be on the safe side". An individual's self-efficacy is measured by 6 items from General self-efficacy scale by Chye Koh as utilized by (Anwar & Saleem, 2019). Statements included "Even when things are tough, I can perform quite well".

The other variable we have is innovativeness which will be measured by an 8-item Innovation Scale from the Jackson Personality Inventory Manual (JPI) as utilized by (Anwar & Saleem, 2019). Statements include “I like to experiment with various ways of doing the same thing” and Proactiveness will be measured by using 10 items shortened version of (Bateman & Crant, 1993). Items include: “Regardless of the odds, if I believe in something, I will make it happen.”

Finally, Entrepreneurial education will be measured by Walter & Block (2016) four-item scale. Statement includes items like “My school education helped me develop my sense of initiative a sort of entrepreneurial attitude.

### **3.6 Method of Data Analysis**

After conducting the actual survey and data collected, the data will pass through the quantification process for purpose analysis. Nowadays, quantitative analysis is almost always done by computer programs such as Statistical package for Social science (SPSS) and Micro-Case (Babbie, 2012). For the purpose of this study Statistical package for Social science (SPSS) will be used to analyse the data which would be obtained from primary sources. Also, inferential statistics like correlation and multiple regression analysis will be employed for the study.

According to Creswell (2014) correlation is a design used to investigate co relational statistic which helps to describe and measure the degree or association or relationship between two or more variables or sets of scores.

Multiple regression analysis used when the researcher has one dependent variable which is presumed to be a function of two or more independent variables and its objective is to make prediction about the dependent variable based on its covariance with independent variables (Kothari, 2004). Accordingly, regression analysis will be employed to investigate the relationship between antecedents of entrepreneurial intention and entrepreneurial intention.

Therefore, after the data collected through questionnaire, it will be analyzed through Statistical Package for Social Sciences (SPSS) Version 25. The data will be screened and treated for errors and missing values. The data will be analyzed with Statistical tools such as a descriptive statistical analysis which provides data for frequency distribution, mean, standard deviation, and for graphical representation.

Also, regression analysis will be done to test the hypothesis and correlation analysis will also be done to determine the nature and degree of relationships between dependent variable (Entrepreneurial Intention) and independent variables (innovativeness, proactiveness, risk taking, self efficacy, and entrepreneurship education).

### 3.7 Reliability Test

Reliability is essentially a test by which our measurement method produces stable and consistent result, over instruments and over groups of respondents(Cohen et.al., 2005).

Reliability measurement will be done to ensure that the developed scales/factors measured consistently what were intended to be measured; the Cronbach’s coefficient alpha will be employed to test reliability. Previous related studies employed similar assessment tested the variables for its subscales reliability and scored medium to high Cronbach ‘s coefficient Alpha. Consequently, to make sure the measurements of variables under this study reliability test will be conducted for each of the variable under the study (Entrepreneurial Intention, Innovativeness, Proactiveness, Risk Taking, Self-Efficacy, and Entrepreneurship Education).According to Nunnaly (1978), the closer the reliability coefficient to 1.00 is the better. In general, reliabilities less than 0.60 are considered poor; those in the range of 0.60 to 0.80 are considered good and acceptable. In this study, all the independent variables and dependent variable, met the above requirement. The alpha value for each variable is identified and summarized in table as shown below.

**Table 3 3: Reliability Statistics for all variables**

Subscales	Cronbach's Alpha	Number of Items
Entrepreneurial Intention	.885	6
Innovativeness	.869	8
Self-efficacy	.822	5
Proactiveness	.839	10
Risk taking	.777	5
Entrepreneurship Education	.883	4

Source: Own Survey, computed in SPSS, 2020

### **3.8 Ethical Consideration**

Due consideration is given to ethical issues such as confidentiality and anonymity. Accordingly, the respondents are communicated about the purpose, significance, and responses will be used for academic purpose only and kept confidential. The identity of the respondents would remain anonymous and informed not to write their name and only included based on their free will in this study to maintain the confidentiality of the information provided by the respondents.

## **CHAPTER FOUR**

### **4.0 Data Presentation, Analysis, and Discussion**

This chapter is consisting of the empirical findings from the survey and an analysis of the results. The first section presents an overview of the respondents' profile and data distribution using descriptive statistics in order to visualize the result more clearly. This is followed by testing the hypotheses by analyzing the correlation and regression. Generally, this part of the paper will present descriptive statistics, correlation, regression analysis and mediated regression analysis with respective discussion of results.

### **4.1 Data Cleaning**

Based on the methodologies specified in chapter three (simple random sampling), 263 questionnaires were distributed and (235) were returned for analysis. Meanwhile, in the process of cleaning the data for its completeness and practical response pattern, only 220 of the questionnaires were found valid or workable. Accordingly, those 220 workable responses obtained from respondents were used for data analysis with Statistical Package for Social Science (SPSS) Version 25.

### **4.2 Respondents Demographic Information**

As indicated in the instrument of the survey, the first part of our questionnaires is consisting of the demographic characteristics of respondents. The demographic information of the respondents is regarding to gender and age of respondents to investigate for possible correlation with the entrepreneurial intention. The results and analysis of demographic information obtained from the structured questionnaire are summarized below:

**Table 4.1: Demographic information of respondents (N = 220)**

Variables	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	70	31.8	31.8	31.8
	Male	150	68.2	68.2	100.0
	Total	220	100.0	100.0	
Age	18-23	93	42.3	42.3	42.3
	24-29	76	34.5	34.5	76.8
	30-35	34	15.5	15.5	92.3
	Above 35	17	7.7	7.7	100.0
	Total	220	100.0	100.0	

*Source: Own Survey, computed in SPSS, 2020*

Based on the above table (Table 4.1) gender composition indicates that in the university, most of the respondents, 150 (68.2%) were male, and 70 (31.8 %) are females. for this we can say that the number of males is considerably higher than females in the case area. Regarding to age category, the highest number of respondents fall under the age group of 18-23years, which accounts 93 (42.3%) of the total sample. Accordingly, 76(34.5%) respondents are at the age of between 24-29 years, where as 34 (15.5%) respondents are on the age group of 30-35 years. The least number of respond also found on the age group above 35 which is 17 (7.7%).In this regard, it can be observed that almost majority of the population (76.8%) in the graduating class students of the university is below 30 years of age.

**Table 4.2: Descriptive Statistics for Independent and Dependent Variables**

Variables	Mean	Std. Deviation	Extent of highest mean score
Entrepreneurial intention (Y)	4.0185	.80551	
Risk-taking	4.0642	.97272	1 <sup>st</sup>
Entrepreneurship Education	4.0621	.85395	2 <sup>nd</sup>
Proactiveness	3.9948	.95303	3 <sup>rd</sup>
Innovativeness	3.8947	.94166	4 <sup>th</sup>
Self-efficacy	3.6383	.87052	5 <sup>th</sup>

*Source: Own Survey, computed in SPSS, 2020*

Based on the above table descriptive mean result the highest mean value was scored by risk taking with a mean value of (4.0642), entrepreneurship education (4.0642), proactiveness (3.9948), innovativeness (3.8947), and self-efficacy (3.6383), respectively.

The overall intention levels of students , which is an aggregate of the six statements, is agreed to an average agreement rating of (M=4.0185, SD=.80551) which is found that on average the majority of respondents reported themselves to be intentional to start their own business in the foreseeable future. Also, As we can see from the table the mean score of each variable is ranged from low of 3.6383 (SD =.87052) to a high of 4.0642 (SD=.97272) ; therefore it appears that respondents in the given sample are relatively rated all of the variable above the average score of 5 point liker scale.

### 4.3. Inferential statistics

The results of inferential statistics were presented in this section and Pearson’s product moment correlation coefficient and regression analysis were performed for the purpose of assessing the objectives of the study. With the support of these statistical techniques, conclusions are drawn regarding the sample and decisions are made with respect to the research hypothesis.

#### 4.3.1 Correlation Analysis

#### 4.3.2 Pearson correlation analysis

Pearson correlation coefficient (r) is a measure of the direction and magnitude of the relationship between two variables. Theoretically, there could be a perfect positive correlation between variables which is represented by 1.0 (plus1), or a perfect negative correlation which would -1.0 (minus 1). The correlation coefficient is a measure of strength of the relationship (among different variables) that lies between -1 and 1 (Wegner, 2012). According to cooper (2010) a correlation test shows either a negative or positive relationship, which can either be weak or strong, depending on the range of value of the coefficient: 0.3-weak, 0.5-moderate, 0.7-strong.

**Table 4.3: Rule of thumb for correlation coefficient.**

Range of coefficient	Description of strength	Value
$\pm 0.01$ to $\pm 0.29$		Weak
$\pm 0.30$ to $\pm 0.49$		Moderate
$\pm 0.50$ to $\pm 1$		Strong

*Source: (cooper, 2010).*

Accordingly, inferential statistics (Pearson’s Product Moment Correlation Coefficient and linear regression) are used to examine the relationship of those variables under study; and strength of correlation was interpreted through suggestion of (cooper, 2010).in the following range of coefficients.

**Table 4.4: Correlation Analysis of Each predictor Variable with entrepreneurial intention**

<b>Variables</b>	<b>EI</b>	<b>INN</b>	<b>SE</b>	<b>PR</b>	<b>RT</b>	<b>ED</b>
Entrepreneurial Intention	1					
Innovativeness	.380**	1				
Self-efficacy	.329**	.158*	1			
Proactiveness	.218**	.468*	.352**	1		
Risk -Taking	.617**	.233**	.436**	.537**	1	
Entrepreneurship Education	.549**	.208**	.287**	.203**	.498**	1

**Sources:** Own Survey, computed in SPSS, 2020

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 4.4: above shows the level of correlation between the dependent variable entrepreneurial intention and independent variables innovativeness, self efficacy, proactiveness, risk taking, and entrepreneurship education.

Innovativeness is positively correlated to entrepreneurial intention with a Pearson correlation coefficient of  $r=.380$  and Sig. (2tailed) is 0.000 which is  $<0.05$  so that, there is a moderate relationship between the two variables.

Proactiveness is positively correlated to entrepreneurial intention with a Pearson correlation coefficient of  $r=.218$  and Sig (2-tailed) is 0.000 which is  $<0.05$  which implies a weak relationship between entrepreneurial intention and proactiveness.

The results of the Pearson correlation analysis also revealed a positive correlation between risk taking and entrepreneurial intention with a correlation coefficient of  $r =.617$  and Sig. (2tailed) is 0.000 which is  $<0.05$  so that, which implies a strong relationship between the variables.

The results of the Pearson correlation analysis also revealed that there was a positive correlation between entrepreneurial intention and self-efficacy ( $r =.329$ ,  $p <0.05$ ) which implies a moderate relationship between the two variables. Entrepreneurial intention is also positively correlated to

entrepreneurship education with a Pearson correlation coefficient of  $r=.549$  and Sig (2-tailed) is 0.000 which is  $<0.05$ . Therefore, there is a strong relationship between the two variables.

Thus, the analysis indicated that risk-taking was the most correlated variable with the dependant variable '\_entrepreneurial intention' ( $r = .617, p <0.05$ ) followed by entrepreneurship education with entrepreneurial intention ( $r = .549, p <0.05$ ) there was also a moderate positive relationship between innovativeness and self-efficacy with the dependent variable '\_entrepreneurial intention' with the correlation coefficient of ( $r = .380, p <0.05$ ) and ( $r = .0329, p <0.05$ ) respectively. The lowest correlation is found between proactiveness and entrepreneurial intention at ( $r = .218, p <0.05$ )

#### **4.4 Assumptions of simple linear regression analysis**

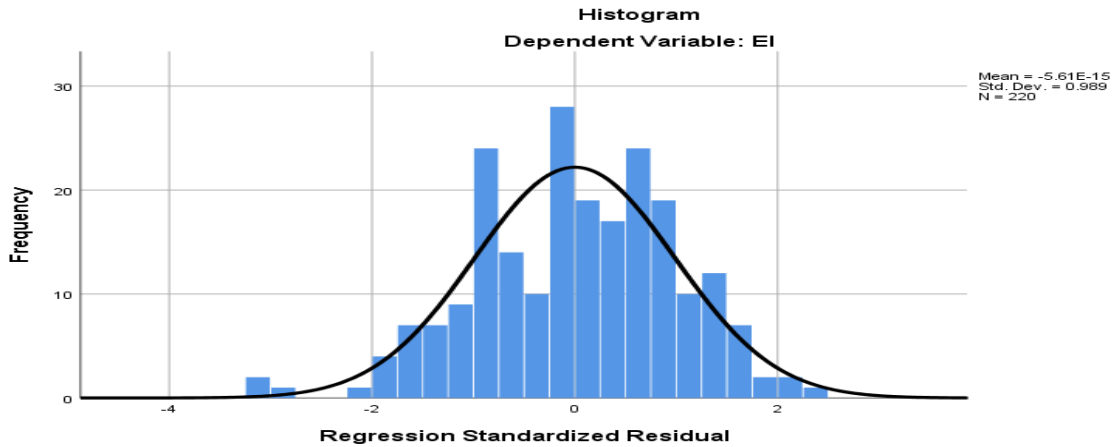
According to Field (2009), to run a simple linear regression checking basic assumptions is essential to draw a conclusion about the population under the study. Therefore, for our analysis to be reliable and valid we need to check our data for the assumptions of multiple regressions. In this regard, all the assumption was checked and passes the standards to run regression analysis. The results of all the assumptions are presented as follows.

##### **4.4.1 Normality test**

Normality test of data is applied to determine whether a data is well modelled by a normal distribution or not, and to compute how likely an underlying random variable is to be normally distributed. Skewness and kurtosis were used to measure the normality of data for this study.

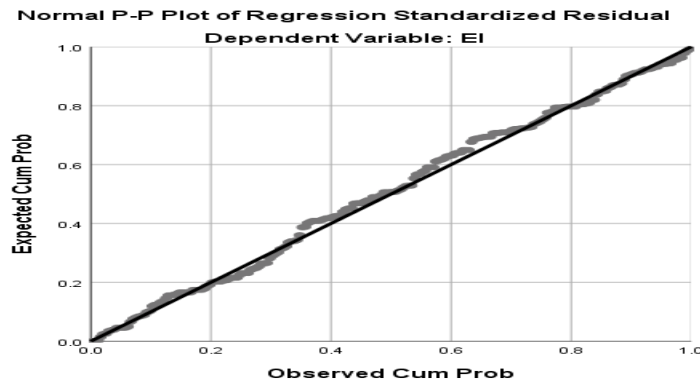
As Field (2009) noted, many statistical procedures assumed that the sampling distribution is normally distributed and so, if the sample data are approximately normal then the sampling distribution will be also. Among several ways to check for the normality assumptions for simple linear regression analysis, it is advisable to inspect to see if a distribution is normal through histogram and a P-P plot (probability–probability plot). Therefore, to establish the validity of these assumptions, the researcher also checks for the normality through histogram and P-P plot as follows.

**Figure 4.1: Normality Test Using Histogram**



Sources: *Own Survey, computed in SPSS, 2020*

According to Brooks (2008) as cited by Yodit (2017) a normal distribution looks like a symmetric bell-shaped curve, and the mean, median, and mode are equal or close to each other. Therefore figure 4.1 above shows the underlying frequency distribution that look like bell-shaped curve.



**Figure 4.2: plot of standardized residuals**

Sources: *Own Survey, computed in SPSS, 2020*

The normal probability plot shows some deviations from normality. The straight line in this plot represents a normal distribution, and the points represent the observed residuals.

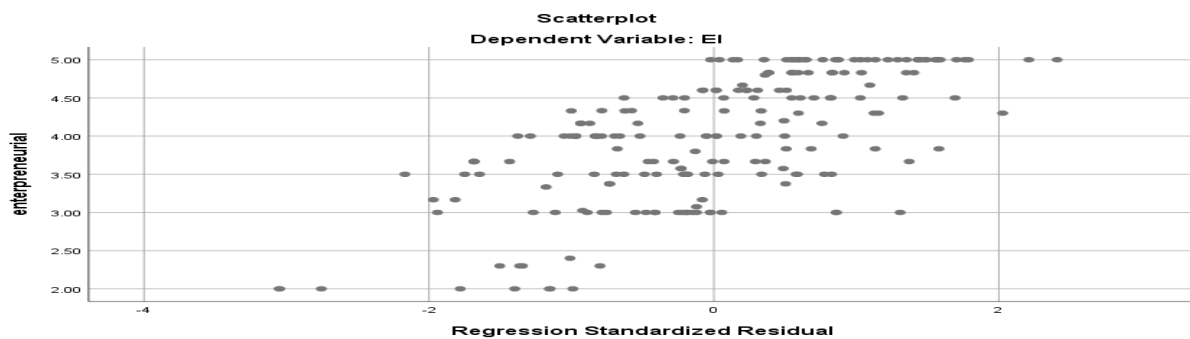
According to Field (2009), in a perfectly normally distributed data set, all points will lie on the line. Likewise, as we seen in the above figure (figure 4.2), the dots are closely plotted to the

straight line, which indicate a small or no deviation from normality and there are no extreme cases observed.

#### 4.4.2 Test for Homoscedasticity

According to Osborne & Waters (2002), Homoscedasticity which is another assumption of multiple linear regressions refers to equal variance of errors across all the independent variables. As a result, the researchers believe that errors are spread out consistently between the variables and Statistical software scatter plots of residuals with independent variables are the method for examining this assumption (Keith, 2006). Therefore, the homoscedasticity of the study is tested using scatter plots.

**Figure 4.3: Scatter plots for test of homoscedasticity**



Sources: *Own Survey, computed in SPSS, 2020*

Our plot of standardized regression residuals and standardized predicted values showed no observable signs of funneling so that the assumption of homoscedasticity has been met.

#### 4.4.3 Test for autocorrelation

Autocorrelation test is a test for whether the errors of adjacent observations are highly correlated which may underestimate the standard error of the coefficient; multiple linear regression models assume the residuals are independent of one another. The Durbin-Watson statistic is the common method used to test for the presence of serial correlation among the residuals. The test statistic varies from 0 to 4, a value of 2 indicate that there is no autocorrelation. However, a value below two i.e. nearing zero indicates a positive autocorrelation and value above two i.e. nearing four indicates negative autocorrelation (Field, 2009). According to him a value less than 1 or more than 3 is a cause of concern. Based on the Durbin-Watson statistic test, the assumption that our residuals are independent (or uncorrelated). This statistic can vary from 0 to 4. For assumption

#3 to be met, we want this value to be close to 2. Values below 1 and above 3 are cause for concern and may render our analysis invalid.

**Table 4.5: Durbin-Watson Autocorrelation Test**

Model	Durbin-Watson
1	2.072

Sources: *Own Survey, computed in SPSS, 2020*

The Durbin-Watson statistic from our model summary showed that this assumption had been met, as the computed value for Durbin-Watson was almost 2.00 which show no autocorrelation.

#### **4.4.4 Linearity**

Garson (2012) pointed out that simple inspection of scatter plots is a common method for determining if nonlinearity exists in a relationship. Therefore, the researcher run simple scatter plot to see if there is a linear relationship exists between the between the dependent and independent variables and the scatter plots are indicated in (appendix A). Looking at the scatter plot produced by SPSS, we can see that the relationship between the dependent and independent variables could be modelled by a straight line suggesting that the relationship between these variables is linear.

#### **4.4.5 Tests for Multi-co linearity**

In regression analysis, multi co linearity occurs when independent variables in the regression model are highly correlated with each other than dependent variable. When the independent variables in the regression model are highly correlated with each other; they are basically measuring the same thing, which is the cause of concern. To asses multi co linearity examining correlations among the independent variables is one of the ways.

According to Hair et al, (2006), a correlation of 0.90 or above among the independent variables there might be a problem with multi co linearity and he argue that correlation coefficient below 0.90 may not cause serious multi co linearity problem, cited by Mohammed (2012). It can also be detected using tolerance value and variance inflator factor (VIF) value. An insignificant tolerance value point to the variable under discussion is almost a perfect liner combination of the independent variables already in the equation and that it should be dropped out from to the equation.

**Table 4.6: Test of Multi-co linearity**

SN	Variables	Co linearity Statistics	
		Tolerance	VIF
	(Constant)		
1	Innovativeness	.760	1.316
2	Self-efficacy	.782	1.279
3	Proactiveness	.560	1.785
4	Risk-taking	.519	1.927
5	Entrepreneurship Education	.719	1.391

Sources: *Own Survey, computed in SPSS, 2020*

Table 4.6 above shows that value of tolerance of each independent variable ranges from 0.519 to 0.782 and the value of variance inflation (VIF) factor ranges from 1.279 to 1.927, hence, the tolerance value in all independent variable were greater than 0.1 and the VIF values of all independent variables are less than 10, which indicate there is no multi-co linearity problem among the variables on this study.

#### **4.5 Regression Analysis**

The model employed in this study is tested for assumptions of classical linear regression such as normality, multi co linearity, heteroscedasticity , autocorrelations, and linearity and the model satisfy the classical linear regression model assumptions that we are free to conduct the regression analysis and conclude results for the population.

Regression analysis is a statistical procedure used for estimating the relationships between one or more predictor variables and response variable. In order to test for the influence of each independent variable (innovativeness, self-efficacy, proactiveness, risk-taking, and entrepreneurship education) on dependent variable (entrepreneurial intention), multiple regression analysis was performed.

**Table 4.7: Hierarchical regression for demographic variable**

ITEM	MODEL ONE			MODEL TWO		
	B	Std. Error	Sig	B	Std. Error	Sig
(Constant)		.230	.000		.300	.029
Gender	.052	.117	.447	.053	.083	.277
Age	.025	.058	.710	.034	.041	.477
INN				.327	.045	.000
SE				.087	.051	.119
PR				-.301	.052	.000
RT				.540	.053	.000
ED				.253	.051	.000
R2	.003			.563		
R2 Change	.003			.559		

Sources: *Own Survey, computed in SPSS, 2019*

The First regression was conducted for the possible effects of the demographic variables (gender and age); as we can see from the above table demographic factors have a 0.3% ( $R^2=.003$ ,  $P=.694$ ) variability over entrepreneurial intention. Therefore, demographic variable (gender and age) has statistically insignificant implication on the level of student's entrepreneurial intention.

**Table 4.8: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.748 <sup>a</sup>	.559	.549	.54111	2.072
Dependent Variable: EI Predictors: (Constant), INN, SE, PR, RT, ED					

Source: *Own Survey, computed in SPSS, 2020*

The above (table 4.8) indicates, the independent variables statistically predicting the overall level of entrepreneurial intention in Addis Ababa university business students. From the table the R value 0.748 indicate that the presence of strong correlation between the independent variables and dependent variable. The value of  $R^2$  0.559 which indicate that the independent variables explain 55.9% of the variations on the dependent variable with unexplained factors of 44.1 %.

This indicate that 55.9% of the variance in entrepreneurial intention level can be explained by the variance of the determinants of the aforementioned variable (innovativeness, self-efficacy, proactiveness, risk-taking, and entrepreneurship education) taking in to account the sample size and independent variables.

Furthermore, the standard error of the estimate is a measure of the variability of the multiple correlations. Therefore, as shown in the model summary for the regression analysis table 4.8 above the standard error estimate of this model summary is (.54111).

**Table 4.9: ANOVA result table**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	79.439	5	15.888	54.262	.000 <sup>b</sup>
	Residual	62.659	214	.293		
	Total	142.099	219			

*Source: Own Survey, computed in SPSS, 2020*

- a. Dependent Variable: EI
- b. Predictors: (Constant), INN, SE, PR, RT, ED

The analysis of variance (ANOVA) tells us whether the overall results of a model are significantly good degree prediction of the outcome variable. The regression Sum of squares is the difference between Total Sum of Squares and Residual Sum squares ( $TSS - RSS = 142.099 - 62.659 = 79.439$ ). Here, each sum squares (i.e., Regression, residual and Total under the source column) has a corresponding degrees of freedom (DF) associated with it. Total degree of freedom is  $n - 1$  ( $DF = 220 - 1 = 219$ ), one less than the number of observations. The regression degree of freedom for the above table is five (5), which is the number of independent variables (Innovativeness, Self-Efficacy, Proactiveness, Risk Taking, and Entrepreneurship Education). The residual sum of squares (residual for left over) is sometimes known in the literatures as Error Sum of Squares is that part still cannot be accounted for after the regression model is fitted. It has 214 degrees of freedom ( $= 219 - 5$ ) for this research paper. The mean squares are the sum of squares divided by the corresponding degrees of freedom.

F-ratio is a measure of how much the model has improved the prediction of the dependent variable (Entrepreneurial Intention) compared to the level of in accuracy of the model (Field, 2009). In general the above ANOVA (table 4.15) shows a strong relationship between the

dependent and independent variables of the study with F-statistic or F- ratio of 54.262 for the overall analysis, and is worth-mentioning that the F- value is highly significant (as  $p=.000<.01$ ). The significant level in ANOVA table shows that the combination of the variables significantly predicts the dependent variable.

#### 4.5.1 Test of Significance

Coefficient table shows which variables are individually significant predictors of the dependent variable through the standardized Beta coefficient which show the contribution of individual variables. The Beta Weight is the average amount the dependent variable increases when the independent variable increases by one standard deviation (all other independent variables are being held constant).

**Table 4.10: Regression Coefficients of the Variables**

Model	Unstandardized Coefficients			Standardized Coefficients		
		Beta	Std. Error	Beta	t	Sig.
1	(Constant)	.903	.239		3.782	.000
	INN	.285	.045	.333	6.395	.000
	SE	.069	.048	.075	1.458	.146
	PR	-.262	.051	-.310	-5.113	.000
	RT	.456	.052	.550	8.736	.000
	ED	.233	.051	.247	4.621	.000

*Source: Own Survey, computed in SPSS, 2020*

a. Dependent Variable: EI

b. Predictors: (Constant), INN, SE, PR, RT, ED

The beta value in the above coefficient table tells in what degree each independent variable affects the outcome if the effects of all other predictors are held constant. Each of the beta values has an associated standard error indicating to what extent these values would vary across different samples, and these standard errors are used to determine whether beta value differ significantly from zero.

The t-test associated with p-value is significance (p or sig value is less than 0.05) then the predictor is making significant contribution to the model the smaller the value of the sign (the larger the value of t) the greater the contribution of that predictor to entrepreneurial intention.

Table 4.10: indicated that the influence of innovativeness (INN), self efficacy (SE), proactiveness (PR), Risk taking (RT), and Entrepreneurship education (ED) on Entrepreneurial intention level in Addis Ababa university graduating class business students.

Innovativeness ( $t = 6.395$ ,  $P < 0.05$ ), Risk Taking ( $t = 8.736$ ,  $P < 0.05$ ), Proactiveness ( $t = -5.113$ ,  $P < 0.05$ ), and Entrepreneurship Education ( $t = 4.621$ ,  $P < 0.05$ ) found to be the strongest and statistically significant influence on entrepreneurial intention. Although, self-efficacy ( $t = 1.458$ ,  $P > 0.05$ ) found to be insignificant in predicting entrepreneurial intention.

The regression coefficient  $\beta$  represents the change in the outcome resulting from a unit change in the predictor and that if a predictor is having a significant impact to predict the outcome then this  $\beta$  should be different from 0 (and big relative to its standard error). The p-value is less than 0.05 for all the variables except self-efficacy hence, it indicates that the 4 independent variables are significant predictor of entrepreneurial intention and self-efficacy found to be statistically insignificant in predicting entrepreneurial intention.

Therefore, the  $\beta$  is different from 0 and the researcher found that the predictor variables make a statistically significant contribution in predicting entrepreneurial intention, Innovativeness ( $\beta_1$ ) = .333, Proactiveness ( $\beta_3$ ) = -.310, Risk taking ( $\beta_4$ ) = .550, and Entrepreneurship education ( $\beta_5$ ) = .247 are statistically significant variables in predicting entrepreneurial intention. Whereas Self-efficacy ( $\beta_2$ ) = .075 statistically insignificant relationship with entrepreneurial intention since its p-value is greater than 0.05.

The above table (table 4.16) also shows each of these beta values has an associated standard error indicating to what extent these values would vary across different samples, and these standard errors are used to determine whether or not the  $\beta$  – value differs significantly from zero.

#### **4.6 Mediation analysis**

In order to test the mediation effect of entrepreneurship education, Baron and Kenny (1986) four step regression methods was used. Baron and Kenny (1986) proposed a four step approach in which several regression analyses are conducted and significance of the coefficients is examined at each step. A mediation variable commonly signified as just (M) is a third variable that hypothesized causal chain in which one variable affects a second variable that, in turn affects a third variable.

In step 1, a simple regression analysis was carried out with independent variable (innovativeness, self-efficacy, proactiveness, and risk-taking) predicting entrepreneurial intention (DV) to test the possible effect of mediation.

Table 4.11. Regression of DV (EI) over independent variable (INN, PR, SE, and RT)

ITEM	MODEL ONE			MODEL TWO		
	B	Std. Error	Sig	B	Std. Error	Sig
(Constant)		.230	.000		.294	.000
Gender	.052	.117	.447	.059	.087	.243
Age	.025	.058	.710	-.004	.042	.931
INN				.369	.046	.000
SE				.123	.053	.034
PR				-.354	.054	.000
RT				.667	.050	.000
R2	.003			.518		
R2 Change	.003			.515		

*Source: Own Survey, computed in SPSS, 2020*

Our result in the above Table 4.11 shows the significant effect of innovativeness, self-efficacy, proactiveness, and risk-taking on entrepreneurial intention with ( $\beta = .369$ ,  $p < .010$ ;  $\beta = .123$ ,  $p < .050$ ;  $\beta = -.354$ ,  $p < .010$ ; and  $\beta = .667$ ,  $p < .010$ ) respectively, with R2 of .518, where the aforementioned variable uniquely explains 51,5% of the variation in entrepreneurial intention.

The second step in the mediation analysis is testing the relation between the independent variable and the mediating variables. In Table 4.12, the results for the regression of innovativeness, self-efficacy, proactiveness, and risk-taking on entrepreneurship education is provided.

The first analysis, a regression on entrepreneurship education, includes innovativeness, self-efficacy, proactiveness, and risk-taking and the control variables (gender & age). The result shows that entrepreneurship education is correlated with innovativeness, self-efficacy, proactiveness, and risk-taking ( $\beta = .166$ ,  $p < .05$ ;  $\beta = .142$ ,  $p < .05$ ;  $\beta = -.209$ ,  $p < .010$ ; and  $\beta = .504$ ,  $p < .010$ ), with R2 of .303, where (INN,SE,PR, and RT) uniquely explains 28:6% of the variation in entrepreneurship education.

In Table below, model 1, none of the control variable came out as a positive correlate of entrepreneurship education ( $\beta = -.128$ ,  $p > .05$  and  $\beta = .001$ ,  $p > .05$ ), and in model 2 age is a negatively correlate with entrepreneurship education ( $\beta = -.150$ ,  $p < .050$ ). The control variables alone explain 1.6 % of the change in entrepreneurship education.

**Table 4.12. Regression of entrepreneurship education over IV**

ITEM	MODEL ONE			MODEL TWO		
	B	Std. Error	Sig	B	Std. Error	Sig
(Constant)		.242	.000		.374	.000
Age	-.128	.061	.059	-.150	.054	.011
Gender	.001	.123	.989	.026	.111	.670
INN				.166	.059	.011
SE				.142	.068	.043
PR				-.209	.068	.006
RT				.504	.063	.000
R2	.016			.303		
R2 Change	.016			.286		

*Source: Own Survey, computed in SPSS, 2020*

In the third step, another simple regression analysis was performed with entrepreneurship education predicting entrepreneurial intention. The results from the model summary table and the coefficient table indicate that there is a positive significant relationship between entrepreneurship education and entrepreneurial intention ( $\beta = .562$ ,  $p < 0.01$ ) with R2 of .314. Entrepreneurship education uniquely explains 31% of the variation in student's entrepreneurial intention. This is indicated in table 4.13 below.

**Table 4.13. Regression of entrepreneurial intention over entrepreneurship education**

ITEM	MODEL ONE			MODEL TWO		
	B	Std. Error	Sig	B	Std. Error	Sig
(Constant)		.230	.000		.299	.000
Age	.025	.058	.710	.097	.049	.090
Gender	.052	.117	.447	.051	.097	.366
ED				.562	.054	.000
R2	.003			.314		
R2 Change	.003			.310		

*Source: Own Survey, computed in SPSS, 2020*

The purpose of steps 1 – 3 was to establish that zero-order relationships among the variables exist. If one or more of these relationships are non-significant, researchers usually conclude that mediation is not possible or likely. A significant relationship from steps 1 – 3, led to step 4. In step 4 models, there was need to ascertain if a full or partial mediation occurred. According to Baron and Kenny (1986) a full mediation occurs if the effect of mediating variable (entrepreneurship education in this context) remains significant after controlling for independent variable (innovativeness, self-efficacy, proactiveness, and risk-taking).

On the other hand, a partial mediation is deemed to have occurred if the relationship between the independent variable and the dependent variable is still significant after controlling for the effects of the intervening variable (that is, both IV construct and entrepreneurship education significantly predict entrepreneurial intentions). The results of step 4 were presented as in Table below.

**Table 4.14. Regression of entrepreneurial intention on (INN, SE, PR, & RT) and entrepreneurship education**

ITEM	MODEL ONE			MODEL TWO			MODEL THREE		
	B	Std. Error	Sig	B	Std. Error	Sig	B	Std. Error	Sig
(Constant)		.230	.000		.294	.000		.300	.029
Age	.025	.058	.710	-.004	.042	.931	.034	.041	.477
Gender	.052	.117	.447	.059	.087	.243	.053	.083	.277
INN				.369	.046	.000	.327	.045	.000
SE				.123	.053	.034	.087	.051	.119
PR				-.354	.054	.000	-.301	.052	.000
RT				.667	.050	.000	.540	.053	.000
ED							.253	.051	.000
<b>R Square</b>	<b>.003</b>			<b>.518</b>			<b>.563</b>		
<b>Adjusted R Square</b>	<b>-.006</b>			<b>.505</b>			<b>.548</b>		

*Source: Own Survey, computed in SPSS, 2020*

In Table 4.14 above, shows three steps analysis. Based on Baron and Ken (1986) four steps condition, we established the two requirements for mediational analysis. Firstly, the effect of the independent variable on the dependent variable, taking control variables (age & gender) into credit, is significant with an adjusted R2 of .505, where the first condition is satisfied.

Secondly, IV (INN, SE, PR, & RT) are a significantly correlate with mediating variable (entrepreneurship education) with an adjusted R2 of .283. Thus, the second condition is fulfilled.

Finally, model 3 of the result shows where the significance of the correlation between IV and entrepreneurial intention disappears only for self-efficacy, due to the mediation effect of entrepreneurship education. Thus, full mediation for self efficacy and partial mediation for innovativeness', proactivness, and risk taking is achieved, with an adjusted R2 of .548. Accordingly, we assumed that the mediation hypothesis of self-efficacy and entrepreneurial intention is more indirect than direct, and it is believed to be through entrepreneurship education. Based on this result, we can say that entrepreneurship education significantly mediate the

relationship between innovativeness', self efficacy, proactiveness, and risk taking in which hypotheses 6 (H6) achieved.

#### **4.7. Summary of Findings and Discussion**

This part of the study will present summary and discussion of findings of the research study. Therefore, the results of the study regarding influence of innovativeness, self efficacy, proactiveness, risk taking, and entrepreneurship education on the level of entrepreneurial intention. Also, inferential statistics such as correlation, multiple regressions and hierarchical regression were conducted to have clear understanding and perception to measure the degree of differences in the relationship between the independent variables (innovativeness, self efficacy, proactiveness, risk taking, and entrepreneurship education) and the dependent variable (entrepreneurial intention). These findings were a synthesized discussion which links the findings of the empirical research as presented in literature part with the objectives of the study to successfully answer the research questions that this study raised. Therefore, all hypotheses (H1, H2, H3, H4, and H5) were tested using multiple regressions to find out whether those hypotheses proposed in this study are acceptable or not. Meanwhile hypothesis 6 (H6) were tested using hierarchical regression (mediation) analysis to find the mediation role of entrepreneurship education.

The findings of descriptive analysis indicate most of the respondents are males and most respondents fell into the age groups of 18-23. Based on the descriptive mean result the highest mean value was scored by risk taking with a mean value of 4.0642, entrepreneurship education 4.0642, proactiveness 3.9948, innovativeness 3.8947, and self-efficacy 3.6383 respectively. The overall intention levels of students, which is an aggregate of the six statements, is agreed to an average agreement rating of (M=4.0185, SD=.80551) which is found that on average the majority of respondents reported themselves to be intentional to start their own business in the foreseeable future.

The finding from the Pearson correlation result indicates that a positive relationship between determinants; Innovativeness (.380\*\*), proactiveness (.218\*\*), self-efficacy (.329\*\*), risk taking (.617\*\*), entrepreneurship education (.549\*\*) and entrepreneurial intention. The positive relationship derived from the correlation analysis implies that the determinants are essential for students to establish their own business. Thus, the analysis indicated that risk-taking was the

most correlated variable with the dependant variable \_entrepreneurial intention '( $r = .617$ ,  $p < 0.05$ ) and the lowest correlation is found between proactiveness and entrepreneurial intention at ( $r = .218$ ,  $p < 0.05$ ).

The First regression was conducted for the possible effects of the demographic variables (gender and age); as we observe from the analysis, demographic factors have a 0.3% ( $R^2 = .003$ ,  $P = .694$ ) variability over entrepreneurial intention. Accordingly, demographic variable (gender and age) has statistically insignificant implication on the level of student's entrepreneurial intention. This result was consistent with (Ahmed et al., 2010). Who found that a demographic variable (gender and age) has insignificant relationship with entrepreneurial intention with different perspective and model.

Findings from multiple regression indicate that, all the determinants except one variable (self-efficacy) has statistically significant effect and determine the entrepreneurial intentions of Addis Ababa university business students. The regression analysis also shows R-square value of 0.559 which signifies 55.9% of the variation in the entrepreneurial intention of business students is explained by the independent variables namely (innovativeness, self-efficacy, proactiveness, risk taking, and entrepreneurship education). Adjusted R- square of 0.549 reveals that model has accounted for 54.9 of the variances in the dependent variable (criterion variable) if the study includes the whole population. Furthermore, all the assumptions of multiple regression model (normality, autocorrelation, homoscedasticity, linearity, and multi-co linearity) was checked and pass the standards to run regression analysis.

The result of regression coefficient  $\beta$  found that the predictor variables make a statistically significant contribution in predicting entrepreneurial intention, Innovativeness ( $\beta_1 = .333$ , Proactiveness ( $\beta_3 = -.310$ , Risk taking ( $\beta_4 = .550$ , and Entrepreneurship education ( $\beta_5 = .247$ ) are statistically significant variables in predicting entrepreneurial intention. Whereas Self-efficacy ( $\beta_2 = .075$ ) statistically insignificant relationship with entrepreneurial intention since its p-value is greater than 0.05

The first hypothesis (H1), which states that Innovativeness will be significantly associated with the entrepreneurial intention of university students in establishing a business. The correlation coefficient of innovativeness indicates a moderate relationship with entrepreneurial intention ( $r = .380$ ,  $p < 0.05$ ). The regression result also tells us innovativeness to be a significant predictor of

entrepreneurial intention ( $\beta = .333$ ,  $P < 0.05$ ) which shows likelihood of having entrepreneurial intention are increased by a factor of 0.333 for every positive incremental of innovativeness, considering other variables in the model constant. These findings are consistent with previous research findings (Ahmed et al., 2010; Gürol & Atsan, 2006; Mueller & Thomas, 2001; Thomas & Mueller, 2000). Therefore, we don't reject H1 because it is significant with beta value of  $\beta = .333$  at 5% significant level.

Following hypothesis (H2) which states Proactiveness will be significantly associated with the entrepreneurial intention of university students in establishing a business. The result of correlation coefficient of proactiveness tells us there is a weak but positive relationship with entrepreneurial intention ( $r = .218$ ,  $p < 0.05$ ). The regression result also tells us proactiveness to be a significant predictor of entrepreneurial intention ( $\beta = -.310$ ,  $P < 0.05$ ). These findings are consistent with previous research findings (such as Chipeta & Surujlal, 2017; Crant, 1996; Mustafa et al., 2016). Therefore, we don't reject H2 because it is significant. With beta value of  $\beta = -.310$  at 5% significant level.

The third hypothesis (H3) which says risk-taking will be significantly associated with the entrepreneurial intention of university students in establishing a business and the correlation coefficient indicates a strong relationship with entrepreneurial intention ( $r = .617$ ,  $p < 0.05$ ). The regression result also tells us risk-taking is a significant predictor of entrepreneurial intention with beta value of ( $\beta = .550$ ,  $P < 0.05$ ) which shows likelihood of having entrepreneurial intention are increased by a factor of  $.550$  for every positive incremental of risk-taking, considering other variables in the model constant. These findings are consistent with previous research findings (such as Ertuna & Gurel, 2011; Gürol & Atsan, 2006; Hmieleski & Corbett, 2008). Therefore, we don't reject H3 because it is significant. With beta value of  $\beta = .550$  at 5% significant level.

The fourth hypothesis (H4) states Self-efficacy will be significantly associated with the entrepreneurial intention of university students in establishing a business. The results of correlation coefficient from a regression tells us self-efficacy has a moderate relationship with entrepreneurial intention ( $r = .329$ ,  $p < 0.05$ ). The regression result tells us self-efficacy to be a

insignificant predictor of entrepreneurial intention ( $\beta = .075$ ,  $P > 0.05$ ). Therefore, we reject H4 because it is insignificant at 5% significance level with beta value of .075.

Regarding hypothesis five (H5) which states Entrepreneurship education will be significantly associated with the entrepreneurial intention of university students in establishing a business. A correlation coefficient of Entrepreneurship education from the analysis indicate a strong relationship with entrepreneurial intention ( $r = .549$ ,  $p < 0.05$ ) and a regression result also shows Entrepreneurship education is a significant predictor of entrepreneurial intention ( $\beta = .247$ ,  $P < 0.05$ ) which shows likelihood of having entrepreneurial intention are increased by a factor of .247 for every positive incremental of Entrepreneurship education, considering other variables in the model constant. These findings are consistent with previous research findings (such as do Paço et al., 2013; Ertuna & Gurel, 2011; Israr & Hashim, 2017; Krueger, Jr. & Brazeal, 2018). Therefore, we don't reject H5 because it is significant. With beta value of  $\beta = .247$  at 5% significant level.

Regarding the mediation analysis (hierarchical mediation analysis) the find shows us that entrepreneurship education fully mediate self efficacy and also partially mediate the relationship between others predictor and entrepreneurial intention. The result also interestingly clarifies that self-efficacy and entrepreneurship education play a fundamental role in enhancing entrepreneurial intentions. Self efficacy is necessary condition but not sufficient to develop entrepreneurial intention unless combined with Entrepreneurship education.

## CHAPTER FIVE

### 5.0 Conclusions and Recommendations

This chapter presents synthesized conclusions derived from the summary and discussion of findings in the previous chapter. It also presents limitations of the study, recommendations, and future research direction.

### 5.1 Conclusions

The study investigated determinates of entrepreneurial intention and the mediating role of entrepreneurship education from the perspective of equipping students with entrepreneurial knowledge on Addis Ababa university business students. The researcher proposes four variables as factor to drive entrepreneurial intention and one variable (entrepreneurship education) as a mediator and demographic variable (Age and Gender). Different statistical techniques (descriptive, correlation, regression, and hierarchical regression) were applied based on our model for analysis. Based on the analysis of the study, the following conclusions are drawn:

According to hierarchical regression result, we cannot differentiate entrepreneur from non-entrepreneur based on age and gender as the findings suggest that there is no significant relationship between these variables and intentions to become entrepreneur.

Based on mean value students expressed their agreement towards the determinants of entrepreneurial intention and given a minimum score for self-efficacy to the maximum score of risk-taking.

The scores indicate that all variables are positively correlated with entrepreneurial intention and among the determinants; risk-taking was the most correlated variable followed by entrepreneurship education. There was also a moderate positive relationship between innovativeness and self-efficacy with the dependent variable \_entrepreneurial intention. The lowest correlation is found between proactiveness and entrepreneurial intention. Based on the above result we can conclude that prioritizing among determinants of entrepreneurial intention to foster student's ability to establish their own venture while developing and implement curriculum and teaching method is very critical.

Furthermore, the power of the predictors in explaining over all entrepreneurial intention level of Addis Ababa university students has found that the dependent variable explained by the five determinants namely innovativeness, self-efficacy, proactiveness, risk-taking, and entrepreneurship education which are found as significant overall predictors of entrepreneurial intention. However, self-efficacy does not directly influence, rather it indirectly affects entrepreneurial intention through entrepreneurship education.

Regarding research objective analyzed results in relation to the determinates entrepreneurial intention of Addis Ababa university business student shows most of the driving factors of entrepreneurial intention are innovativeness, risk-taking, entrepreneurship education and proactiveness. Self-efficacy found to be insignificant in affecting the level of entrepreneurial intention. This shows the effect of self efficacy more of indirect rather than directly affecting entrepreneurial intention.

Finally, the mediation analysis the study revealed that entrepreneurship education partially mediate the relationship between the predictors and entrepreneurial intention, thus entrepreneurship education was fully mediate the effects of only self-efficacy on entrepreneurial intention. Entrepreneurship education has a strong mediating effect between the aforementioned constructs and entrepreneurial intentions among university students. The entrepreneurial intentions of students are influenced directly by the students' entrepreneurship education, innovativeness, proactiveness, and risk taking and indirectly by self-efficacy. It can be concluded that self-efficacy can contribute significantly to development of students' entrepreneurial intention when mediated by entrepreneurship education.

## **5.2 Recommendations**

The findings of this study are believed to have a practical implication which shows areas of intervention students need to develop personal skills, attributes and behavioral patterns that enhance their entrepreneurial capabilities. It also offers valuable directions and insight for those academics, educational policy developer, and government officials who formulate, deliver and examine the fruitfulness of education systems of the universities in the country and make the necessary changes accordingly to advance the entrepreneurial mindset of university students.

Accordingly, the following recommendations are made based on the research findings and the conclusion. The policy implication of the research is to emphasis on entrepreneurship education in empowering the young force of a country. This advice is very critical of for two main reasons. First, the findings revealed that entrepreneurship education not only has a direct influence on entrepreneurial intention but also it interacts strongly with other constructs both directly and indirectly. Second, entrepreneurship education which serves as a mediator has the highest effect size on entrepreneurial intention, depicting its importance for policy formulation. The findings call for ministry of higher education of Ethiopia to emphasize more on entrepreneurship education in developing personal skills, attributes and behavioral aspects to realize the full potentials of students with regards to entrepreneurial intention.

Recently ministry of higher education issued a policy change to include entrepreneurship education in all disciple despite failing to capture and include important elements in lines of educational reform that may offer better results would be directed to increasing personal skill and attributes like innovativeness, proactiveness, and risk taking, as they are the most influential elements to determine the entrepreneurial intention. The curriculum should incorporate other less formalized pedagogical approaches such as business games and skill-development exercises (to enhance creativity, innovativeness, networking, leadership, negotiation, etc.) would be most appropriate. Similarly, awareness seminars, exposure to business practices, and adjusting educational pedagogies towards valuing and encouraging independence and self-employment of students could be very important to create and encourage an entrepreneurial culture in maintaining its fast-economic growth and minimize unemployment issue in the country.

In addition to that, University management and educators should add more value to their graduates by incorporate some skill training beside the elements in a curriculum that enhance the development innovativeness, proactiveness, and risk-taking, since these are beneficial to both a self-employment and a successful career path.

### **5.3 Limitation of the study**

In terms of the limitations our study is not without limitations, it has several limitations which could be an opportunity for future research direction. First, we used a cross-sectional method of data collection which came only from Addis Ababa university business students. Using longitudinal data with a larger sample from different university and a comparative study would have provided more valid support for the study. In addition to this, the number of factors that are investigated focused on only five determinants among hundreds of variables that can influence entrepreneurial intentions; important variables like , family income, core self-evaluation, and culture are key variables in determining entrepreneurial intention were not included in the study. Likewise, more control variable (demographical features) could also be useful to broaden the scope of the study.

Also, using only student sample fails to capture the possible effects of the existence of professional or full-time work experience on new venture formation. Specifically, in cases in which the career choice forms later in life, antecedents of intention may not be captured in a sample that includes participants in their very early career stages.

### **5.4 Future research directions**

In studying the determinates of entrepreneurial intention, the stated objectives of the study are addressed by applying several statistical methods and strictly following the research methodology. Even though, the study addressed the research problems, draws conclusion and forward practical recommendations; the researcher believed that there are issues remain untouched by the study due to the scope the research covered and these issues has to be addressee in future studies to fully understand the subject, since it is a new phenomenon in developing country like Ethiopia. Thus, the following points are future research directions.

The researcher believes that the findings of the study would have been more representative and productive if it has been conducted at country or regional level and by including other key variable instead of focusing only Addis Ababa university students and some influencing factors. Therefore, future researcher can investigate the determinants of entrepreneurial intention at a country or regional level. In addition, Future researcher can investigate other potential predictors of entrepreneurial intention such as family income, core self-evaluation, culture, and more

control variable (demographical features) could also be useful to broaden the scope of the study further. Also, future research can investigate mediating role of personal traits such as self-esteem in analyzing the predictor of entrepreneurial intention. Finally, future researchers can also investigate a comparative study on students who have taken an entrepreneurship course and those who are not may be studied. This study is only a beginning. To fully conceptualize the determinates of entrepreneurial intentions, more in-depth qualitative or mixed research would need to be undertaken. Hence, this research employed only quantitative research approach.

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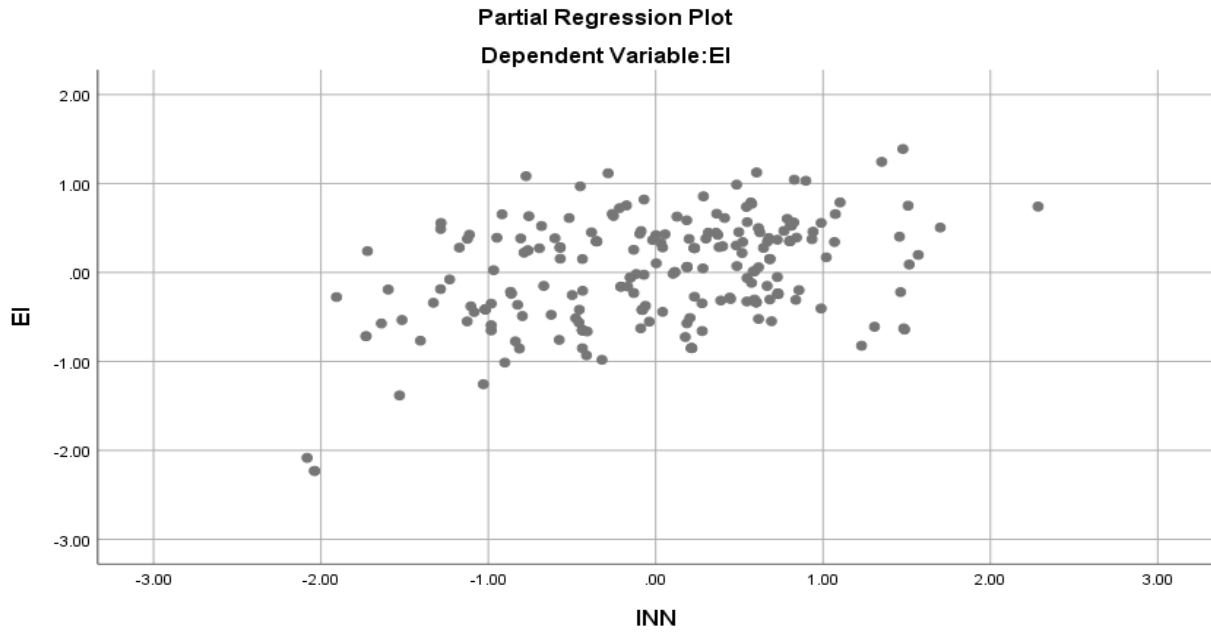
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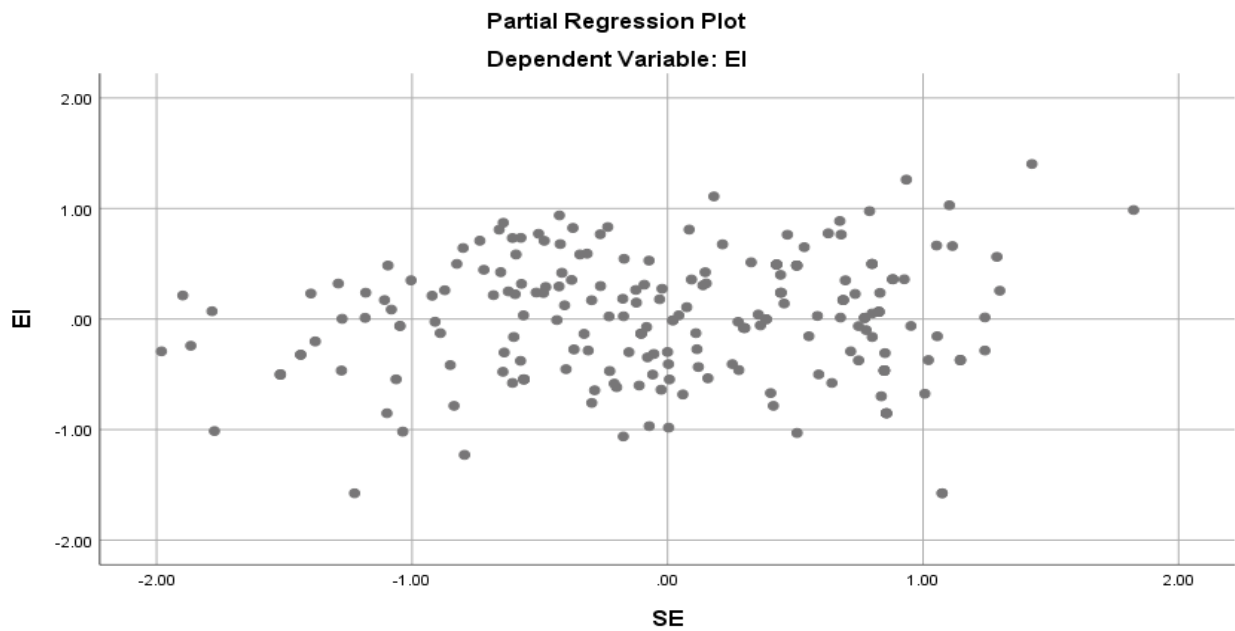
# Appendixes

## Appendix A: Linearity test plots

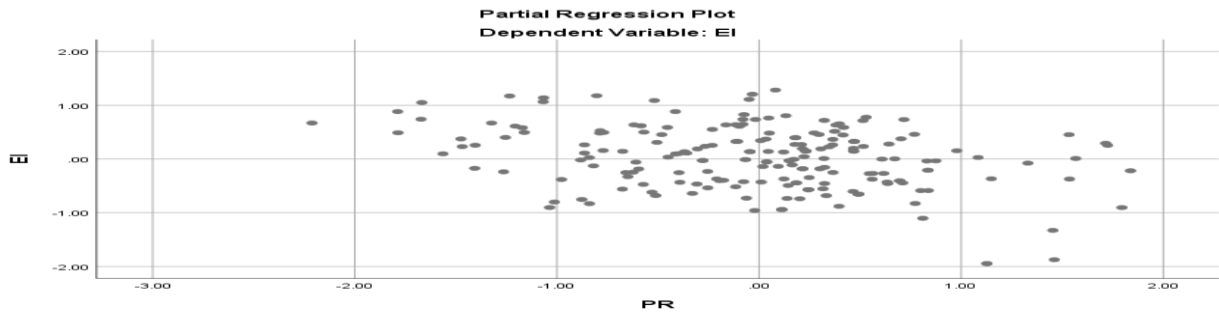
### 1. Entrepreneurial Intention Vs. Innovativeness



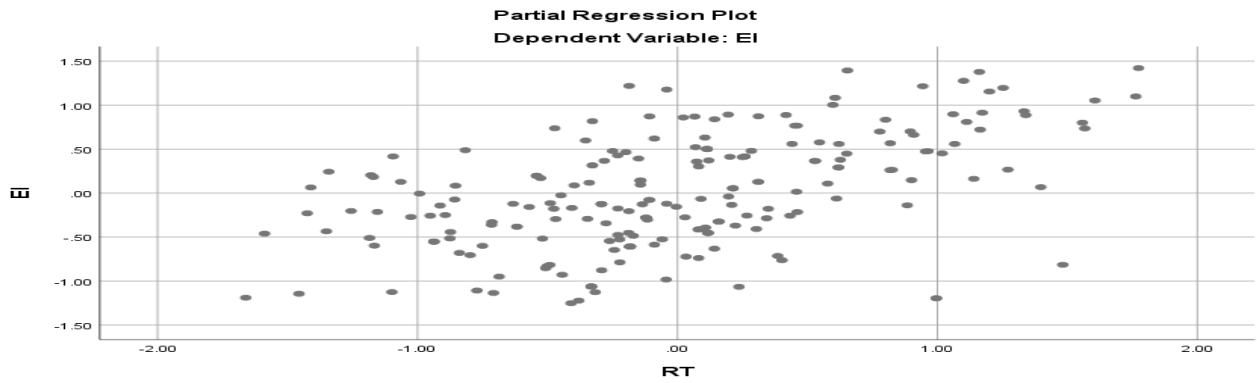
### 2. Entrepreneurial Intention Vs. Self-Efficacy



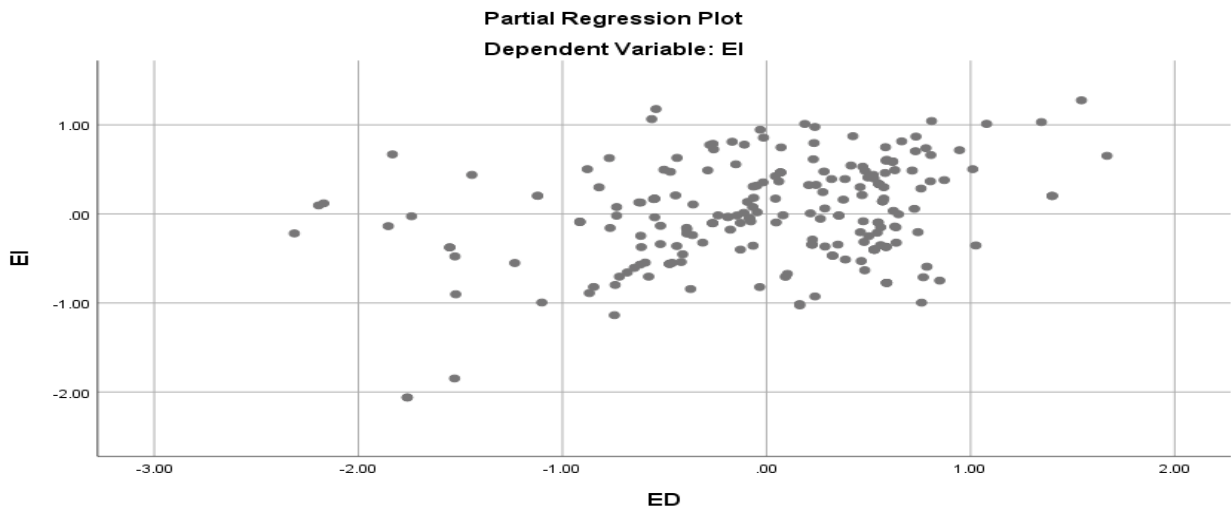
### 3. Entrepreneurial Intention Vs. Proactiveness



### 4. Entrepreneurial Intention Vs. Risk-Taking



### 5. Entrepreneurial Intention Vs. Entrepreneurship Education



**Appendix B; Regression Outputs**  
**Regression Coefficients result table**

**Hierarchical regression output for demographic variable**

ITEM	MODEL ONE			MODEL TWO		
	B	Std. Error	Sig	B	Std. Error	Sig
(Constant)		.230	.000		.300	.029
Gender	.052	.117	.447	.053	.083	.277
Age	.025	.058	.710	.034	.041	.477
INN				.327	.045	.000
SE				.087	.051	.119
PR				-.301	.052	.000
RT				.540	.053	.000
ED				.253	.051	.000
R2	.003			.563		
R2 Change	.003			.559		

*Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$*

**Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.748 <sup>a</sup>	.559	.549	.54111	2.072

Model		Unstandardized		Standardized		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	.903	.239			3.782	.000
	INN	.285	.045	.333		6.395	.000
	SE	.069	.048	.075		1.458	.146
	PR	-.262	.051	-.310		-5.113	.000
	RT	.456	.052	.550		8.736	.000
	ED	.233	.051	.247		4.621	.000

*Source: Own Survey, computed in SPSS, 20120*

a. Dependent Variable: EI

b. Predictors: (Constant), INN, SE, PR, RT, ED

### ANOVA result table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	79.439	5	15.888	54.262	.000 <sup>b</sup>
	Residual	62.659	214	.293		
	Total	142.099	219			

Addis Ababa  
University  
(Since 1950)



**Dear respondents,**

This survey is designed to identify the **Determinants of Student's Entrepreneurial Career Intentions: The mediating role of entrepreneurship education, a study on Addis Ababa university business students.** Filling out this questionnaire will take **less than 15 minutes** of your time.

Please be honest and thoughtful in completing the survey, as the research reliability and fruitfulness is highly depending on the information provided by you, to this understanding your honest full information is the fundamental pillar of the study. Your response is completely confidential and anonymous, the information provided is only used for research purpose and exclusively accessed by the researcher.

I would like to express my utmost gratitude for your participation once again!

Mulusew Ashenf: mulusewashenf@gmail.com or 0915627780

Kind regards,

Mulusew A

### **Section one: Background information**

First, we request you to provide some background information; the information you provide will be used to compare any significant difference of opinion between different groups, not to identify you as an individual.

**Gender:** Female  Male

**Age:** 18-23  24-29  30-35  Over 35

**Section Two:** Given below are list of questions that help us to meet the research objectives, please carefully read and answer every questions.

<b>Indicate your level of agreement with the following statements from 1 (strongly Disagree) to 5 (Strongly Agree)</b>						
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I'm ready to make anything to be an entrepreneur.					
2	My professional goal is becoming an entrepreneur.					
3	I will make every effort to start and run my own firm.					
4	In the foreseeable future I will start my own business.					
5	I have very seriously thought in starting a firm.					
6	I've got the firm intention to start a firm some day.					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7	I often surprise people with my novel ideas					
8	I prefer the work that requires original thinking					
9	I like the job which demands innovativeness rather than skill and practice.					
10	I obtain more satisfaction from coming up with a new idea than mastering a skill.					
11	I like to experiment with various ways of doing the same thing					
12	I don't like usually doing a job in exactly the way it was taught to me.					
13	It's possible to accomplish your goal in this world without sticking to some basic rules.					
14	Sometimes I rather enjoy going against the rules and doing things I'm not supposed to do.					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

15	I will be able to achieve most of the goals that I have set for myself.					
16	When facing difficult tasks, I am certain that I will accomplish them.					
17	I am confident that I can perform effectively on many different tasks.					
18	Even when things are tough, I can perform quite well.					
19	Compared to other people, I can do most tasks very well.					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20	I am constantly on the lookout for new ways to improve my life.					
21	Wherever I have been, I have been a powerful force for constructive change.					
22	Nothing is more exciting than seeing my ideas turn in to reality.					
23	If I see something I do not like, I fix it.					
24	No matter what odds, If I believe in something, I will make it happen.					
25	I love being a champion for my ideas, even against others opposition.					
26	I excel at identifying opportunities					
27	I am always looking for better ways to do things					
28	If I believe in an idea, no obstacle will prevent me from making it happen.					
29	I can spot a good opportunity long before others can.					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
30	I don't like to put something at stake, I would rather be on the safe side.					
31	I follow the motto, 'nothing ventured, nothing gained'.					
32	If a task seems interesting, I will choose to do it even if I'm not sure, whether I will manage it.					

33	I would like to act in my boss's job some time so as to demonstrate my competence, despite the risk of making mistakes.					
34	I express my opinion even if most people have opposite views.					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35	My school education helped me develop my sense of initiative - a sort of entrepreneurial attitude.					
36	My school education helped me to better understand the role of entrepreneurs in society.					
37	My school education made me interested to become an entrepreneur.					
38	My school education gave me skills and know-how that enable me to run a business.					

*The end!!!*