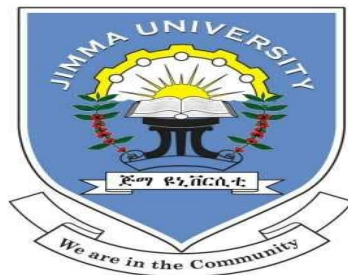# *Determinants of Students' Entrepreneurial Career Intentions*: A Study on Jimma University Business and Technology Field Students

*A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Business Administration (MBA)*

## BY:

### TEWABECH   KASSA   ALEM



## JIMMA UNIVERSITY

## COLLEGE OF BUSINESS AND ECONOMICS

## DEPARTMENT OF MANAGMENT

**JUNE, 2021**

**JIMMA,   ETHIOPIA**

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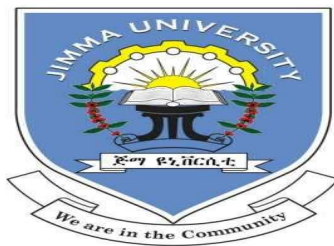
**BY:**

**TEWABECH  KASSA  ALEM**

## Under the Guidance of

WENDWESEN SIYUM (Ast.Prof)

And

DEREJE TEFERA (MBA)



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# CERTIFICATE

This is to certify that the research entitled **"*Determinants of Students' Entrepreneurial Career Intention Case in Jimma University Business and Technology Students.*"** submitted to Jimma University for the award of the Degree of Master of Business Administration (MBA) and is a record of valuable research work carried out by Miss. **Tewabech Kassa Alem,** under our guidance and supervision.

Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

| Name of Main Advisor | Signature | Date |
|---|---|---|

Wendwesen Siyum (Ast.Prof)          _____          _____

| Name of Co-Advisor | Signature | Date |
|---|---|---|

Dereje Tefera (MBA)          _____          _____

# DECLARATION

I declare that thesis titled *"Determinants of Students' Entrepreneurial Career Intention in Case of Jimma University Business and Technology Students"*, has been carried out by me under the guidance and supervision of Wendwesen Siyum (Ast.Prof) and Dereje Tefera (MBA).

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

Researcher's Name                Date                Signature

<u>Tewabech   Kassa</u>          _____              _____

# Acknowledgements

# Abstract

*The main objective of this study was to investigate the determinate on students' entrepreneurial career intention in Jimma University business and technology field students. Explanatory and descriptive research design was adopted with quantitative approach to examine the relationship among the study variables. Primary data source was used to answer the research questions. It was collected through standard and adopted questionnaires. Stratified random sampling technique was applied to collect information from the sample respondents. 324 closed ended questionnaire distributed and 295 (91%) were collected. The data was analyzed by using SPSS (Version-23). Descriptive and inferential statistical techniques were used for data analysis. In descriptive by using frequencies, percentages, mean scores, Standard Deviations and in inferential statistics, Pearson's correlation and regression analysis were used to assess both relationships and effects between the determinate factors and entrepreneurial intention. The findings showed that correlation between entrepreneurial intention and dimension of risk taking, self-efficacy, access of finance and entrepreneurship education was strong and also innovativeness and family background was moderate relation on students' entrepreneurial intention. In addition based on the regression analysis 55.7% of the entrepreneurial intention can be explained by predicators (independent variables) jointly. Thus, it has been concluded that internal factors (innovativeness, risk taking and self-efficacy) and external factor (access of finance, family background, and entrepreneurship education) has positive significant effect on entrepreneurial intention in Jimma University business and technology students. Finally the researcher recommended to coming researchers conduct research on the unexplained entrepreneurial intention dimensions (variables) under this study in wide scope and different methodology.*

*Key words: Access of finance: Entrepreneurship Education: Entrepreneurial Intention: Family Background: Innovativeness: Risk taking: Self-efficacy:*

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# ACRONYMS/ABBREVIATIONS

| | |
|---|---|
| AC | Access to Finance |
| ANOVA | Analysis of Variance |
| BECO | Business and Economics collage |
| ED | Entrepreneurship Education |
| EI | Entrepreneurial Intention |
| FB | Family Background |
| INN | Innovativeness |
| IVF | Variance Inflation Factor |
| JIT | Jimma Institute of Technology |
| JU | Jimma University |
| RT | Risk-Taking |
| SD | Standard Deviation |
| SE | Self-Efficacy |
| SEE | Shapero and Sokol Entrepreneurial Event Model |
| SPSS | Statistical Package for Social Sciences |
| TPB | Theory of Planed Behavior |
| TRA | Theory of Reasoned Action |
| VIF | Variance Inflation Factor |

# CHAPTER ONE

# INTRODUCTION

This chapter contains: background of the study, statement of the problem, objective of the study, hypothesis of the study, significance of the study, scope of the study, limitation of the study and also organization of the study.

## 1.1 Background of the Study

Entrepreneurship has been widely known as a vital force behind the development of each country's economy. It is the concept that it enables of job creation, wealth, innovation, economic growth and development (Afolabi, 2015). Entrepreneurial intentions defined as a conscious awareness and conviction by an individual that sets up a new business venture and plans to do so in the future (Thompson, 2009). Intent of a person or entrepreneurial tendency is understood as personal experience, mental features, how demographic factor influenced from personal intention for starting new business and how personal aims to act in order to gain a certain business activity in the process of becoming an entrepreneur(Joseph, 2017).

Entrepreneurial activities are considered as the powerful force for the achievement of high degree of economic development (Liñán ,2009). It promises increase entrepreneurial activity a healthy development within in the country through reduction of unemployment, fair distribution of income, rise self-employment and various social advantages. Since growth in entrepreneurship activities leads to the creation of opportunities for different sectors of society, it has today been one of the most essential activities for any economy development.

Due to global competition, rapid technological advancement and increasing market economies, entrepreneurship became a hot issue and also Universities are recognized as an important component in the economy where knowledge processing is a medium of making money (Bell, 2015). Besides creating skilled human resources, universities also offer immense effort in research and transferring knowledge which can be valuable to the society and economy. It is also suggested that the educational arrangement of universities provide an atmosphere where the scholars can work with the knowledge that promotes entrepreneurial activities ( Mwange, 2018).

According to Abebe ( 2015), the unemployment problem of university graduates is more and more serious in Ethiopia. To solve this problem, starts to promote the entrepreneurial intention of graduates and drive the employment creation by entrepreneurial activity, it is necessary to explore the entrepreneurial intentions of university students and to identify influencing factors. As described by Mwange, (2018), factor that influences of unemployment is high number of job seekers among those graduates as results of students psychological thought and mind setting to be employees either in private or public sectors. Tegegn, (2016) revealed that, increasing number of unemployed was dominated by the educated unemployed.

Among many theories concerning the study of entrepreneurial intention, the Entrepreneurial Event model (EEM) and Theory of Planned Behavior (TPB) have been used to explain the factors to influence that an individual's entrepreneurial intention to starting new business activity. Furthermore TBP and EEM models are suitable to explain the interaction between internal and external factor( Sivarajah & Achchuthan, 2013). However, compared to other models to do study on entrepreneurial intention of students most researchers prefer modified TPB (Cano & Tabares, 2017) and (Hou et al., 2019).Thus, modified TPB was chosen for this study to obtain the targeted result of authors, it contains the main variables to identify the main factors as internal factors (innovativeness, risk taking and self-efficacy) and external factors ( family background, access to finance and entrepreneurship education ) influence on entrepreneurial intention in Jimma University business and technology field of study students.

In order to investigate different researches in the area of determinants of entrepreneurial career intention; this study focuses on university students in Ethiopia for the following reasons. Firstly, now day's Ethiopian higher education institutions are producing skilled human power that could contribute to the development of the country's economy. The number of students graduating from different university's and joining to the labor market is increasingly exceeding from labor demand that the economy can absorb (labor supply is greater than labor demand). This indicates an increasing of unemployment rate and its related problems. This is largely because of those work forces want to be employed than being an entrepreneur. Secondly, In Ethiopia, 50 percent of the population in the age group between 15 and 30 years is unemployed (Muchie & Mammo , 2009). It is focused among relatively well-educated first time job seekers who come from the middle class ages (Serneels, 2004). Thus university students should be given more attention and emphasis to entrepreneurial intention

in relation to the opening out of higher education institution in Ethiopia and an increased number of graduates students from time to time from university in this cause employability become more and more a serious problem. Thirdly the factors that have impact on entrepreneurial intentions as especially university students from business and technology schools are the most possible future entrepreneurs because of their academic background. Therefore, for the above reasons has become growing interest for researchers on the areas of entrepreneurial intention in university students.

## 1.2. Statement of the Problem

In today's world achieving economic development wise and effective utilization of youth is at the heart of developments of nation and also the dynamic needed to create jobs for oversupply of graduate manpower. Since entrepreneurial activities play quite important roles to encouraging economic and social development (Peng et al., 2012).

A study on Admasie (2018) show that entrepreneurial intention in Ethiopia is very low as compared with other countries. Furthermore, Amha et al (2015) conducted a study on understanding characteristics and determinate of entrepreneurship in Ethiopia. This survey found that, Ethiopia has the highest perception in entrepreneurial opportunities and capabilities, the intention to start new business very low, which clearly indicates, Ethiopia has some work to do to improve the level of entrepreneurial intention, because they are strongly associated with actual entrepreneurial behavior.

There are several studies conducted in the area of university students on entrepreneurial intention. The study conducted by Ayalew (2018), found that entrepreneurship education, self-confidence, access to finance/capitals for startup, risk taking, business-owned family background and networking and professional contacts were found to be significant predicators on students' entrepreneurial intention. In line with the statement of Ayalew (2018), studies such as Thuo & Toma (2016); Muhammad et al (2017) and Paray & Kuma (2020). While the finding of Luc (2018), revealed that that there is no direct relationship between perceived access to finance, risk taking and social entrepreneurial intention. Consistency with the finding of Luc (2018), studies such as Ahmed et al (2010) and Chaudhary (2017). This shows that there are contradictions of findings, so that this study will contribute to the academic and professional efforts to clarify ambiguity in the field. And also

they fail to incorporate the most potential factors which have strong influence on entrepreneurial intention.

According to the related literature and TPB model, the determining factors of the entrepreneurial intention of university students are divided in to two categories,: internal factors and external factors (Cano & Tabares, 2017). Internal factors include personal motivation, self-efficacy, perceived controllability, and skill, while external factors include social cultures context, personal social network, family context, and university context. However, most previous studies have focused on the influence of external (demographic) factors on the students entrepreneurial intention (Shao-Hui & Peng-Peng, 2011) and (Martin et al., 2013). On the other hand in terms of internal perspectives, antecedent variables of entrepreneurial intention mainly focus on motivation, subjective norms, and self-efficacy, attitudes (Sheldon et al., 2006) and (Mulusew, 2020). Consequently, it is difficult to fully reveal the relationship only from external perspectives or internal perspective. Therefore, the current study further enhances the research on the antecedents of entrepreneurial intention of university students by constructing a research model from the combined internal and external perspectives. In this study on entrepreneurial intention of students prefer modified TPB as it contains the main variables to determine the internal factors (innovativeness ,risk taking ,self-efficacy) and external factors (family background, access of finance, entrepreneurship education) influence on entrepreneurial intention of university students.

This research aims to fill the gap observed on the research work of different scholars. The prominent gap is the coverage of students from different field of study. While the majority of the university graduates are from non-business but most entrepreneurship researchers have focused only on the business student such as Abebe (2015}; Melkam (2019); Mulusew (2020) and Tinsae (2020).In fact, non-business students are large in number because of 70:30 educational policies of the country and particularly technology field of study high potential for entrepreneur because of one of the students' profiles is best suited to the developments of new technology based companies and to contribute creations of new jobs. The aim of this research to consider diversified felid of study in natural science, technology and in social science, collage of business and economics, so as to provide business and non-business entrepreneurial intentions of Jimma University students. Moreover, Tinsae (2020 recommended that comparative study between business and non-business students will be

helpful for better understanding the gaps in entrepreneurial intentions. Thus, in this paper compare business and technology entrepreneurial intention in Jimma University.

On top of this, as far as the researcher's knowledge is concerned, significance of studying entrepreneurship and researcher motivated on studying the entrepreneurial intention of university students. Therefore, the study investigated influence of internal factor (innovativeness, risk taking, self-efficacy) and external factors (family background, access of finance, entrepreneurship education) on the students' entrepreneurial career intention.

## 1.3 Research Questions

In order to address the research objectives, the following general question are asked:

1. What are the influences of internal factors (innovativeness, self-efficacy, and risk taking) on determining entrepreneurial intention among Jimma University students?

2. What are the influences of external factors (family background, access to finance, and entrepreneurial education) on determining entrepreneurial intention among Jimma University students?

3. Is there statically significant Entrepreneurial intention difference between Jimma University business and technology student?

## 1.4 Objective of the Study

## 1.4.1 General Objective

The general objective of the study is to investigate the Determinants of Students on Entrepreneurial Career Intention in Jimma University (Jimma Institute of Technology and Collage Business and Economics) field students.

## 1.4.2 Specific Objectives

Based on the above general objective, the following are specific objectives:

- To examine the influence of internal factors (innovativeness, self-efficacy, and risk taking) on entrepreneurial intention of Jimma University students.
- To examine the influence of external factors (family background, access to finance, and entrepreneurial education) on entrepreneurial intention of Jimma University students.
- To investigate whether there is statistically significant Entrepreneurial intention difference between Jimma University business and technology student.

## 1.5 Hypothesis of the Study

A formal statement of research employs hypotheses. These hypotheses are expectations about the outcome of the results (Creswell, 2009). Academicians and researchers have assessed determinates factors of university students on entrepreneurial intention. Empirical evidences and results of previous studies show a mixed trend on the influence of determinate factors on students entrepreneurial intention with statistically significant (negative/positive), weak and in some cases with insignificant or no impact. The researcher develops basic three alternative hypotheses based on previous studies in order to answer the research questions. These hypotheses are presented as follows:

***Ha1****: Internal factor has a significant positive influence on entrepreneurial initiation of students.*

*H1a: Innovativeness has a significant positive influence on entrepreneurial intention.*

*H1b: Risk taking has a significant positive influence on entrepreneurial intention.*

*H1c: Entrepreneurial self-efficacy has a significant positive influence on Entrepreneurial intention.*

***Ha2:*** *External factor has a significant positive influence on entrepreneurial intentions.*

*H2a: Family background has a significant positive influence on entrepreneurial intention.*

H2b: *Access to finance has a significant positive influence on Entrepreneurial intention.*

*H2c: Entrepreneurship education has a significant positive influence on entrepreneurial intention.*

***Ha3:*** *There is statically significant Entrepreneurial intention difference between Jimma University business and technology student.*

## 1.6 Significance of the Study

Most of the previous studies focused on determinate of students' entrepreneurial career intention in business students but in this study focused on business and technology university students. On the other hand based on variable, most of the pervious study focused on only on internal factors and the other focused on external factors but in this study assess both internal and external factor the influence on students' entrepreneurial intention. It is expected to understand the factors and the entrepreneurial intentions of undergraduate students in a Jimma University context, and to discover which can lead to better recommendations.

The study also has significance in bring up the objective and the useful information about the determinate factors on students entrepreneurial intention which may the purpose being to enhance entrepreneurial capacity among university graduates. The findings of this research to know the influence of determinate factors on students entrepreneurial intention this is it may help to understand the relatedness of determinant's factors and entrepreneurial intention and also it may to develop university students about to start new business activity. Additionally, the findings of this research will initiate and helps other interested researchers to undertake further study under this domain. Besides, the study will help researchers to derive new knowledge and develop their existing knowledge about the Entrepreneurial intention in Ethiopia, specifically in Higher Education institutions.

## 1.7. Scope of the Study

This study was not designed on all higher educational institutions in Ethiopia but limited to Jimma University; even it cannot investigate all students of the University. It was limited to investigate determinates of students entrepreneurial career intention in Jimma University business and economics collage and institute of technology. The population of this study was made up of undergraduate students from Jimma Universities in Business and Technology. The sample size was obtained through the use of Yamane allowing us to acquire a total sample 324 students. The empirical study used only University students' determinate factors on entrepreneurial intention.

The key variables of the study are internal factors (innovativeness, self-efficacy, and risk-taking) and external factors (family background, access to finance and entrepreneurship education), while the dependent variable is the entrepreneurial intentions of undergraduate students. The research methodology used to determine the sample technique was used stratified sampling technique, quantitative approach and data was collected from respondents by using questionnaire. Lastly, the study was analyzed by using descriptive and inferential statistical techniques.

## 1.8 Limitation of Study

The major constraints faced by the researcher while conducting this study were. First, this study used a cross-sectional method of data collection which came only from Jimma University business and technology students. Using longitudinal data with a larger sample

from different university and a comparative study would have provided more valid support for the study thus, to compare public and private university students. In addition to this, the number of factors that are investigated focused on only six determinants but many variables that can influence on students entrepreneurial intention.

## 1.9 Organization of the Study

In addressing the research objectives, this thesis is structure into the following chapters. Chapter one focuses on laying the background of the study and statement of the problem on which it hangs the idea of why the study is necessary. It also contains research questions, objectives, research hypothesis, and scope of the study, significance of the study and limitation of the study. Chapter two starts with brief introduction and then continues to discuss about basic concepts and definitions. It also discusses about theoretical bases of the study and empirical literature review and conceptual frame work representation of core concept relationship between variables of study. Chapter three is about research design and methods and starts with short introduction and discussing about research approach and designs to be utilized during study. And data sources and collection methods elaborated followed by sampling design with target population, sample size and sampling technique. It also includes methods data analysis, reliability and validity and ethical concerns that need to be addressed. Chapter four contains research results and discussion this part presents the cream of what has been done after data has been collected and put into tools which generate meaningful interpretations. Finally, chapter five presents conclusions and recommendations.

# CHAPTER TWO

# REVIEW OF LITERATURE

The chapter offers a review of both theoretical and empirical literatures related to the study. Past studies are important as they direct the researcher on other studies done in the similar area. From this review, a conceptual framework using the dependent and the independent variables in the survey was developed, which lays a framework for the study.

## 2.1 Definition and Concepts of Entrepreneurship and Entrepreneur

Different scholars have been going different definitions for the terms entrepreneurship. (Hisrich, et al,. 2017) the prominent scholars on entrepreneurship defined "Entrepreneurship defined as the process of creating something new with value by applying the needed time and effort, assuming to include financial, psychological, risks, and receiving the resulting rewards of economic and personal satisfaction and independence". This implies the risks of entrepreneurship (financial, psychic, and social), put forward a possible different of determinant factors that may encourage or discourage entrepreneurial intention to start entrepreneurial activities.

Entrepreneurship is central to economic development, self-employment creation and improvement of standards of life of people in different societies (Prakash et al., 2015) and (Karimi et al., 2017). According to Malebana (2019) describes entrepreneurship as a process through which entrepreneurs create, modify and grow enterprises to provide new products or services, or add value to products or services. From the above definitions, one can deduce that entrepreneurs are enterprising individuals who engage in a financial behavior with the entrepreneurial intention of creating and adding value to full fill human desires.

The origin of the concept "Entrepreneur" lies in $17^{th}$ century in Europe specifically France – as an individual commissioned to take on a particular commercial project by someone with money to invest. In its earlier stages this usually meant a foreign trading project. Such projects were risky, both for the investor (who could lose money) and for the entrepreneur (who could lose a lot more) to describe by Liñán, (2004), this study indicates compare based on risk an entrepreneur more risker than investor. In simple term an entrepreneur is just a random process of births and death of entrepreneurs. These entrepreneurs are related with the

rapid creation of start-up firms in a particular economy (Yeung, 2002). Diehl (2016), this study indicate seen different potentials of an entrepreneur as more innovative and creative, motivated to venture, self-confident, willing to challenge, better communicator, decision-maker, leader, negotiator, networker, problem solver, team player, systematic thinker, less dependent, less risk averse, able to live with uncertainty, and capable of recognizing opportunities .This indicates an entrepreneur person is very essential for country development and increase independencies.

## 2.2 Intention and Entrepreneurial Intention

According to Krueger et al (2000) ,"intentions are the single best predictor of such behaviors excel themselves over other creature in certain important areas. Liñán (2004) one area certainly is their ability to think and judge phenomenon and also provide judgmental opinion by concisions and judicious thinking. According to Delmar& Davidsson (2000) , this study indicates certainly gives the birth of their ability to get attention towards certain things while also unfocused and demotivated by certain factors and forces on entrepreneurial activities. It is human beings tend to differ in genetically as far as concern their preferences.

Entrepreneurial intention involves the way of a person to start a business in the future. It reveals the forces at work and ability of the individual to recognize opportunities follow it and create new value. In other words, entrepreneurial intention states the person's aspiration and commitment to creating new business activity. Entrepreneurial intention is likewise referred to as "a self-started conviction by someone that they intend to set up a new business activity and purposely plan to do so at some point in the future" (Thompson, 2009).

Entrepreneurial activity creates job opportunities, increases competitiveness and promotes economic growth (Liñán, 2009). Theoretical and empirical studies point out that intentionality is a central concept in understanding the reasons for individuals' entrepreneurial careers (Franco et al ., 2010). In particular, entrepreneurial intention is considered a key feature that explains the determination to start a business or to become self-employed, represent the antecedent of entrepreneurial behavior in most career choice models as mentioned by Zhang et al (2014), being a prerequisite for entrepreneurial behavior (Fayolle et al ., 2006).

Entrepreneurial abilities can be forecasted through analyzing entrepreneurial intentions of the people and the determinate factors that have impact on these intentions. This indicates, it is

put emphasize on entrepreneurial intentions are affected by various internal (personality) factors and external (contextual or environment) factors. Entrepreneurial intention theory had shown that environmental and personal factors can affect entrepreneurial intention directly or indirectly by influencing views and attitudes regarding to entrepreneurial activity (Liñán, et al, 2013); (Byabashaijia, et al , 2010) and (Liñán , 2009).

## 2.3 Theory on Entrepreneurial Intention

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

### 2.3.1 Ajzen's Theory of Planned Behavior Model (TPB)

Theory of Planned Behavior Ajzen (1991), is widely used in literature for analyzing intentions toward entrepreneurial activity. In recent the theory of planned behavior (TPB) has become one of the most commonly used psychological theories to explain and predict human behavior. The theory and its predecessor, the theory of reasoned action, has been applied to a great variety of settings, including the prediction of weight loss, job searching behavior, participation and voting in elections, consumer behavior, attending class, and cheating.

This model focuses on organizational or individual behavior that is influenced by three main factors: Personal attitudes, Subjective norm, and Perceived behavioral control. In addition, TPB was developed by Ajzen in 1991 as an improvement of the Theory of Reasoned Action (TRA), which was developed to study the behavior of individuals or organizations. It has succeeded in becoming an essential instrument to measure human behavior across scientific clusters, including entrepreneurship. However, TPB was chosen in this research because it has been tested for internal factor and external factor combinations.

Theory of planned behavior (TPB) of Ajzen (1991), which explains intentions by means of attitudes, perceived behavioral control , and subjective norm. This indicates TPB theory posits that attitudes in the direction of a behavior including that of entrepreneurial intentions which in an opportunity to predict the actual behavior developed new business activity. By following this theory, it is arguable to concur that a potential entrepreneur is predictable to firstly develop an attitude towards new venture creation while this attitude will result in the

intention to initiate a startup business activities and then, if the intention for such initiative is strong enough, the entrepreneur takes steps in transforming it into action.

Ajzen (2001) , Theory of Planned Behavior (TPB) according to this, entrepreneurial behavior is supposed to be explained by intention, which is affected by three perceptual variables, called antecedents:

**Personal Attitude,** which refers to an individual's perception to have an opinion favorable to the behavior of starting a business.

**Subjective Norm,** which refers to a perception about the social approval of being entrepreneur by parents, friends and colleagues.

**Perceived Behavioral Control,** which is the perceived degree of difficulty involved in performing the entrepreneurial behavior.

**2.3.2 Shapero and Sokol Entrepreneurial Event Model (SEE)**

Shapero & Sokol (1982), in the Entrepreneurial Event model (SEE) is another classical model of entrepreneurial intention indicates that intentions to start a business or entrepreneurial activities come from views of desirability and feasibility and a propensity "to act upon opportunities. The theory of the "entrepreneurial event", developed by Shapero and Sokol in '80s, and the psycho-sociological approach Theory of planned behavior (TPB) launched by Ajzen at the beginning of the 1990s. According to entrepreneurial event model, entrepreneurship intentions are influenced by perceptions of personal desirability (attractiveness), feasibility (capabilities), and propensity to act upon opportunities (willingness).

Shapero & Sokol (1982), entrepreneurial event theory looks at an individual's perceptions of feasibility and desirability to become an entrepreneur in addition to his propensity to act as factors that can act as antecedent to entrepreneurial intentions. The theory maintains that a general sense of inertia guides an individual's behavior until a specific entrepreneurial event causes such inertia to be dis-placed. There are a large number of recent studies that seek to validate this model in relation to intention to start a business in various contexts, including Nishimura & Tristán (2001); Liñán (2006) and  Liñán et al (2013), this study results support the conclusions that perceived desirability and perceived feasibility are individual intrinsic characteristics that influence confidence to start a new business activities.

The entrepreneurial event is outcome of an individual's perceptions of desirability of an entrepreneurial venture which is affected by the individual attitudes and influence from family, peer groups, and professional environment, an individual needs to firstly trust that starting a new business is desirable before the formation of entrepreneurial intention. In addition, an individual's perception of feasibility of a new venture is related to an individual's perception of the availability knowledge, financial support, self-confidence, risk taker and partners which will affect the formation of an entrepreneurial intention to start new venture.

## 2.4 Determinate factors of Entrepreneurial Career Intention

Determinate of entrepreneurial intention construct by two sides that is external and internal factors with regard to the external factor construct, the perceived social norms take into consideration the perceived social and cultural pressure to carry out or not to carry out that entrepreneurial behavior to decide start business. In other words, external factor refers to beliefs about normative prospects of reference groups like as families, classmates, and friends. On another internal factor construct, the perceived desirability is captured by the attitude towards the behavior, which reflects the degree to which the individual holds a positive or negative personal valuation about entrepreneurial activity (Armitage & Conner, 2001).

In turn, the perceived behavioral control is defined as the perception of the easiness or difficulty, called self-efficacy, and the control in the fulfillment of the behavior of interest, also called perceived controllability (Ajzen ,2001) and (Shapero & Sokol ,1982). Accordingly, Shapero & Sokol's variables (1982) and Ajzen's ones (1991), the above two theories can be seen that the perceived social norms relate to a certain extent well with the external dimension and the perceived desirability as well as the perceived behavioral control relate to the internal dimension of individuals. Therefore, the determinants of university students' on entrepreneurial intentions can be studied on two sides with internal factors and external factor.

One side entrepreneurial initiation can be studied through a university, family and socio-cultural context. On the other side, entrepreneurial intentions can be studied through personal motivations, perceptions of self-efficacy and controllability. In this sense, the intention to

start an entrepreneurial career may be considered the most important predictor of the actual (future) behavior.
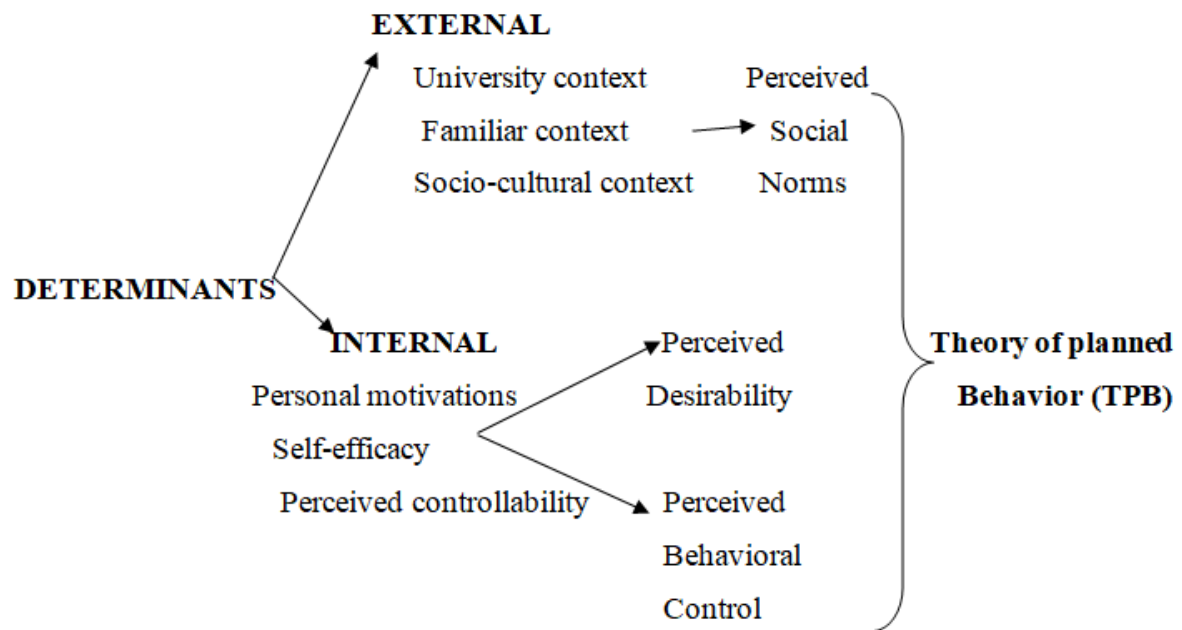


Source: (Cano & Tabares, 2017)

Figure 2.1: Determinants factors of entrepreneurial intention and TPB modified

## 2.4.1 Internal factors

Factors affecting entrepreneurial intention may be internal that is personality according to Turker & Sonmez-Selçuk (2009) and Kobia & Sikalieh (2010), personal characteristics influence peoples' entrepreneurial intention. Its affect the way people recognize opportunities, analyze and evaluate the market. Certain personality traits like level of risk tolerance, level of self-confidence, self-efficacy, the locus of control, a need for achievement, stress tolerance, creativity, and a fear of failure. According to Taatila (2010), to explain a person capability to take risk compels them to turn an opportunity into a business activities or an entrepreneur. In fact it is this personal trait of taking risk that purpose of entrepreneurs to adopt challenging entrepreneurial activities and make sensitive entrepreneurial decisions. Internal factors like willingness to take risks need for independence and locus of control are studied by way of (Franke and Lüthje, 2004).

## 2.4.1.1 Innovativeness

Innovation is defined as adding something new to an existing product or method. Consequently, people with innovative mindset are more likely to initiate commercial enterprise and sustain it through continuous improvement (Okpara, 2007). In addition 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, and introduce new products and services (Vuorio et al., 2018).

Research studies ensure that 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).

According to Liñán (2004) and Amofah et al (2020), entrepreneurship and innovation in business operation always considered as the life blood for obtaining competitive advantages, many academicians and researchers have undertaken numerous scientific works in this field. Scholars argue that when the economy or financial system is in transition, the state should give priority to and help the creation, innovation and entrepreneurial capability, particularly young people (Diehl, 2016) and (Kirby & Ibrahim, 2017). Based on the above empirical works, this study suggested the following hypothesis.

*H1a: Innovativeness has a significant positive influence on entrepreneurial intention.*

## 2.4.1.2 Risk taking

Risk propensity is the best indicator of entrepreneurial intentions compared to other entrepreneurial traits (Zhao et al,. 2010). A student's risk-taking propensity leads to greater levels of entrepreneurial intentions compared to students with no such inclination pointed out by  Gürol & Atsan (2006) and Ozaralli & Rivenburgh (2016),examined effect of personality traits on motivation of students to select entrepreneur career. He identified that need for achievement and risk taking propensity are highly contributed for developing positive attitude

toward entrepreneurship but the relationship between internal locus control and entrepreneurial attitude is not significant.

Entrepreneurs' propensity to take risk also related to risk perception and calculative thinking and converting uncertain endeavors to change successful results. While estimating the risk-taking as natural gifted, the decision-maker forms some beliefs about future outcomes. Individuals' perceived riskiness of the situation is based on personal know-how. One should distinguish between experience in those environments where the decision-maker believes he/she has no control over the outcomes, and those environments where he/she thinks he/she has at least some control over the outcomes (Macko & Tyszka, 2009).

Different studies indicate that there is a statistically significant relationship between risk taking and entrepreneurial intentions of university students (Ertuna & Gurel, 2011) and (Sánchez (2013). University students with entrepreneurial inclinations has higher scores in risk-taking propensity compared to with no entrepreneurial inclination of university students as found by Gürol & Atsan (2006). Hmieleski & Corbett (2008), this research finding also provides proof that individuals with a greater risk acceptance had stronger levels of entrepreneurial intention.

As a business involves many risks, an entrepreneur must have the will to face them and manage them (Brand stätter, 2011). The entrepreneurs' capacity of taking risks might be superior even to that of managers, who are known as risk lovers as indicated by Stewart & Roth (2007), Where the statistics is incomplete, the decision-making must be based on the high propensity of the decision-maker in the direction of taking risks. One's indicates willingness for risk-taking plays a significant role in achieving business success (Rauch & Frese, 2007). As a result, the researcher suggests the following hypothesis.

 *H1b: Risk taking has a significant positive influence on students' entrepreneurial intention.*

## 2.4.1.3 Self-Efficacy

Bandura & Locke (2003), describe the concept self-efficacy as "one's ideals in their abilities to perform a sure degree of overall performance or desired outcomes". And also conceptualized self-efficacy as that which influences situations that affect a person's life". Self-efficacy refers to the level to which the individual feels able to acting the behavior. This is based on the individual's experience and know-how and his or her appraisal of likely

difficulties to performing the behavior. The greater the feeling of behavioral control the stronger will be the intention to perform the behavior (Samuel &Yeboah, 2013). Self-efficacy as a construct has demonstrated predictive capacity for entrepreneurial activity across different cultures, in contrast to social norms, which seem to be more closely linked to cultural variation (Moriano et al., 2012).

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". Consequently, Self-efficacy has been a critical variable which is investigated inside the cognitive study of entrepreneurial behavior (Mwange, 2018). Self-efficacy in entrepreneurial behavior is characterized by making differences between entrepreneurs, successful entrepreneurs, and non-entrepreneurs. Among the numerous antecedents of entrepreneurial intention, entrepreneurial self-efficacy is the essential antecedent and has favorable predictive power regarding entrepreneurial intention (Freling & Forbes, 2005); (Wilson et al,. 2007).

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 ( Mwange, 2018) and (Sánchez, 2013). According to Zhao & Hills (2005), stated that entrepreneurial self-efficacy describes an entrepreneur's perceptions of their own self-confidence as well as their ability to master all the required entrepreneurial activities, which would create them able to deal effectively and efficiently with all the parties involved in an entrepreneurial activity. People who are self-confident in their abilities and skills see good thinking in a set of statuses and turn them into business opportunities in different activity. Consequently, the researcher develops the following hypothesis.

*H1c: Entrepreneurial self-efficacy has a significant positive influence on Entrepreneurial intention.*

## 2.4.2 External Factors Environment

External that is the general environmental factors such as culture, political and economic factors. New firm needs a lot of external resources from the environment to thrive as such any unfavorable conditions in the environment can impede entrepreneurial intentions. External factor indicates environmental factors which affect entrepreneurial intentions are social, financial, political, infrastructure development and marketplace emergence factors. Franke & Lüthje (2004), investigated some external factors like market, education, training, network, society, inspiration likely to affect student intention to be an entrepreneur.

## 2.4.2.1 Family Background

Researchers have identified a wide effect of entrepreneurial intention family background on the entrepreneurial intentions of offspring: modeling career choices obtaining human capital particularly entrepreneurial knowledge and skills providing better get admission to knowledge about entrepreneurial opportunities, and transferring financial and social capital to their children. Family background might be a significant variable for students comes from an entrepreneur. Family background provides the one might be entrepreneurs with an early social network for the ability entrepreneur to learn the social and cultural norms of an entrepreneurial activity (Vardhan & Biju, 2012).

Family background has been established to be the furthermost important factor that affects building of attitude in the direction of entrepreneurship. Early conversion received by an individual from the own family's occupational background might affect career selection through persuading individuals to choose a career in which they are regarded positively and impact the attitudes of individuals towards entrepreneurship. Entrepreneurial behavior that is positively and directly supported is vital and essential requirement for a new enterprise creation. An individual who is without experience and whose family is not supportive can become discouraged and ultimately not continue with starting a business (Keat & Meyer, 2011).

According to Henley (2005),whose study focused on effect of family financial status as single-handedly independent variable observed that higher the financial support by one's family for creating a new business, the stronger the perceived financial and non-financial responsibilities. Family characteristics have the direction on establish of new business,

recognition of opportunity, startup decisions and resource mobilizations (Aldrich & Cliff, 2003).

Carr & Sequeira (2007), this study indicates determined that exposure to own family business serves as a significant intergenerational influence on entrepreneurial intentions to become entrepreneur. And also the parental role is considered a major influencing factor in the career making-choice process of students, especially when a close relative (typically the father) is self-employed.

The latest international record of the GUESSS Project–Global Student Entrepreneurship 2018 reported by Sieger et al (2018), primarily based on 208,000 completed responses from 54 countries and 3000 universities, highlighted that the higher intention to become an entrepreneur amongst university students with entrepreneurial family, as opposite instead of university students without entrepreneurial family, depends on the family' entrepreneurial performance. In previous study shows family back ground students' higher intention for entrepreneurial activities than non-business family background. On the basis of given literature above the following hypothesis can be developed.

*H2a: Family background has a significant positive influence on entrepreneurial intention.*

## 2.4.2.1 Access to Finance

Luc (2018), defined as access to capital is obviously one of the main difficulties to the start-up of new businesses, especially in a developing economy with weak credit and venture capital institutions. Sources of capital may be an extended family network, personal savings, credit systems, community saving, banks and financial institutions. Potential entrepreneurs are necessary to raise capital from other places as they only just finance a new business completely by themselves.

According to Neneh (2016), access to finance is necessary to start firm. It is also perceived as one of the obstacles for younger people to start their individual business. This study thinks through access to finance as startup capital necessary for starting new business. And also financial access to get in different mechanisms these is form of gifts, support from family, friendly give a loan, or loans from financial institutions with interest.

According to Grilo & Thurik (2005), financial constraints have a negative impact on the decision to become an entrepreneur, and lack of financial support is an obstacle to start a new business activity which has direct influence on the fact of being entrepreneurial. And also Indarti & Krinstiansen (2004), lack of access to capital and credit scheme, and the constraints of financial systems are regarded by potential entrepreneur as main difficulties to business innovation and success in developing economies. On the basis of given literature above the researcher develop the following hypothesis.

H2b:  *Access to finance has a significant positive influence on Entrepreneurial intention.*

## 2.4.2.3 Entrepreneurship Education

Entrepreneurship education is a very significant and important method to encourage entrepreneurship in a way that it allows individuals to be equipped with the knowledge required to apply in developing new business ventures, more assertiveness, independence, confidence, recognition of alternative career options, be able to distinguish opportunities better. Students that are engaged in entrepreneurship can play an important role in the development of the country's economy by generating a job opportunity and reducing the level of poverty (Paço &Arminda, 2015). Entrepreneurial education refers to confidence in one's ability to successfully achieve various roles and tasks related to entrepreneurial activity ( Bae et al., 2014).

Timmons & Spinelli (2004) indicates that entrepreneurship education should create a capability for flexibility, willingness to consider conceptually, imagination, creativity, and the art to look change as an opportunity. most of the researches are the idea of entrepreneurship education as a large category to study its influence on the entrepreneurial intention of university students (Indarti, et al 2004); (Mononen & Brunila, 2016).

The main purpose of entrepreneurship education is to teach students to obtain skills, ideas and managerial capabilities, and abilities of self-employment in preference to being employed for salary (Nabi et al,. 2017). Additional objective of entrepreneurship education is to help students to consider business as a career by developing positive attitudes toward entrepreneurial activities (Fayolle et al., 2006). The entrepreneurial education will increases the entrepreneurship intentions and increase the know-how and skills of persons as well.

Bridge and Martin (2009), this study indicates that entrepreneurial education plans, funding enterprise advice, training centers for entrepreneurship, and giving financial support are the key elements, a government can offer to the new business start-ups to inspire and develop more entrepreneurial activities. Entrepreneurship education improves students' entrepreneurial intentions by enhancing their self-efficacy (Fayolle & Gailly , 2006); (Zhao, 2005). Consequently, the researcher develops the following hypothesis.

*H2c: Entrepreneurship education has a significant positive influence on entrepreneurial intention.*

## 2.5. Empirical Review

This section aims to analyze the previous studies which have been conducted on determinants of student entrepreneurial career intention. More specifically; this part of the study tries to review the factors to determine innovativeness, self-efficacy, risk taking, family background, access to finance, and entrepreneurship education on students' entrepreneurial intention.

A study conducted by Nishantha (2009) with the aim of explored the relationship existing between personality traits and socio-demographic background of business management undergraduates toward an entrepreneurial career (self-employment) intention. The researcher adopted 107 respondents of business management undergraduates at the University of Colombo. The finding of the study shown there is a significant relationship between personality traits and entrepreneurial attitude.

Ahmed et al (2010) conducted study on "Determinants of Students' Entrepreneurial Career Intentions: Empirical evidence from Business Graduates". The main objective of this research was the impact of personal traits, demographic factor and entrepreneurship education on entrepreneurial intentions of university students of Pakistan. Data was gathered from the sample of 276 university students. The study found strong relation between innovativeness and entrepreneurial intentions, primarily based as the consequence of finding some demographical characteristics that is Gender and age, were insignificant effect with the intentions come to be businessperson, but earlier revel in, family background to greater contribution to start new business.

In related Yurtkoru & Seray (2014) accompanied a study which pointed at measure the effect of willingness to take risk on entrepreneurial intentions and compare state and private university students. Data collected from 207 state and 214 private university students'. The result of the study indicates some differences between two groups and partial effect of willingness to take risk on entrepreneurial intension.

Malebana (2014) conducted a research on Entrepreneurial Intentions and Entrepreneurial Motivation of South African Rural University Students. The results shown that entrepreneurial intention, the mind-set in the direction of turning in to an entrepreneur, subjective norms, social valuation of entrepreneurship, know-how of entrepreneurial role models and also family support has a significant influence on entrepreneurial intention.

The research conducted by Thuo & Toma (2016) was aimed to determine the entrepreneurial intention of graduating universities students in Ethiopian and to identify factors which influence students' entrepreneurial behavior. The researcher takes used a survey design and adopted 665 samples from final year university students from five universities were randomly selects for the respondents. Quantitative data gathered through self-evaluation survey questionnaire and analyzed using Pearson Correlation and Logistic Regression .The result of this study revealed barriers that discourage entrepreneurial attitude on students include: less government support, based on  institutional issues (lack of start-up capital, business premises, and difficult financial access  and quality inputs and markets), and also based on personal issues (lack of self-confidence and innovativeness, frighten of risk taker, lack of entrepreneurial skills and knowledge on business opportunity identification), and also based on societal issues (less family support and negative perception about entrepreneur).

 Chaudhary (2017) conducted a study aimed to investigate the influence of demographic, social and personal dispositional factors on determining the entrepreneurial intention. The researcher adopted 274 students from two new and upcoming students from both business and non-business schools in India. The result of study revealed the traits of locus of control, tolerance for ambiguity, self-confidence and innovativeness were significant in differentiating entrepreneurs from non-entrepreneurs. At the same time it was also observed that need for achievement and risk-taking propensity were not found to be significantly different for these two groups which are business and non-business students.

A study by Muhammad et al (2017) intended to investigate the impact of family background, big five personality traits and self-efficacy on entrepreneurial intentions of business students in private universities in Pakistan. The data were collected through samples of 500 students. The study result also showed that a positive relationship between the self-efficacy and Entrepreneurial Intentions. The researcher recommends that academicians should develop psychological plans and training to motivate the students to convert their intentions to action because of entrepreneurial activities is one of the biggest ways to reduce unemployment.

Pauceanu et al (2018) was conducted research on "What Determinants Influence Students to Start Their Own Business Empirical Evidence from United Arab Emirates Universities" with the aim of to answer to these questions and investigates, university, the motivation for entrepreneurial intentions among students in 10 universities from the United Arab Emirates. The researcher takes 167sample respondents from 500 total populations. Primary data was collected through questionnaire in terms of factor analysis logistic regression. The major finding of this study significantly correlated with the intention in starting a business is entrepreneurial confidence. In this study to conclude involve specific challenges on the university level, related to the role of entrepreneurial education and on country level, in link with the effectiveness of governmental programs to enhance entrepreneurial endeavors

Amanamah et al (2018) carried out study on An Exploratory Study of Entrepreneurial Intention among University Students in Ghana. The finding showed that utilization of better opportunity in the market least predicted student entrepreneurial intention.

The study conducted by Ayalew (2018) main aim of this study was to investigate the impact of entrepreneurial attitudes on entrepreneurial intention a study on graduate engineering students in Bahir Dar university, University of Gonder and Debre Markose University, Ethiopia, in 2017.the researcher takes used stratified sampling technique on 921 samples from 4327 total population of the final year undergraduate engineering students in 2016/2017 academic session. Data was collected by using questionnaire in terms of descriptive statistics, chi-square test, and binary logistic regression analyses were employed. The study found that entrepreneurial education and entrepreneurial attitudes significantly predicts students' entrepreneurial intention. Based on the result of the findings entrepreneurship education, self-confidence, access to finance/capitals for startup, business-owned family background and networking and professional contacts were found to be significant predicators on students' entrepreneurial intention.

Luc (2018) conducted a study on the Relationship between Social Entrepreneurship Intentions Perceived and Access to Finance among University Students in Vietnam, found that there is no direct relationship between availability of access to finance and social self-employment intention.

According to Iolanda ( 2019) conducted a research on Impact of Entrepreneurship Education and Personality Traits on Entrepreneurial Intentions of university students in Romanian. In this survey found that locus of control, need for achievement and entrepreneurial education proved to be important determinants for venture creation among young students, both independently and under the action of control variable.

A study conducted by Gilmartin et al (2019) who examined Entrepreneurial intent of engineering and business undergraduate students. They showed that technology is often regarded as a driver of innovative technological advancements that fuel economic growth such as discussions entrepreneurship education in engineering has been encouraged as a means to increase the field's links to innovativeness, and also support students' strategic thinking and identify problem-solving capabilities as they graduate and enter the international workforce. This study revealed that innovation orientation and participation in entrepreneurship activities tied to intent more strongly for engineering students than for business students.

A Study by Georgescu & Herman (2020) intended to investigate the main factors influencing students' entrepreneurial intentions, paying particular attention to their entrepreneurial family background. The data were collected through a sample of high school and university students. The collected data was analyzed through independent samples t-tests, correlation analysis, and hierarchical multiple regression analysis, and the findings revealed that the students with a business family background reported grater entrepreneurial intention than those non-business family background.

Wathanakom et al (2020) conducted a study which aimed at to understand the causal relationship between innovativeness and entrepreneurial intentions among undergraduate students. The data collected through a sample of 330 undergraduate students from public universities. The study results showed innovativeness can effectively predict entrepreneurial intention among undergraduate students.

According to Rahman (2020) conducted on Explaining Entrepreneurial Intentions of International Students in Sweden by means of the Theory of Planned Behavior. In this research found that three of those variables Theory of Planned Behavior, where attitude, subjective norms and perceived behavior control have almost similar effect on building the entrepreneurial intention of international university students of Sweden.

Paray & Kumar (2020) conducted the study which aimed at to examine the impact of entrepreneurship education up on building entrepreneurial intention. The data were collected through a sample of 309 students. The study used Regression and ANOVA technique to understand the cause and effect as well as mean differences between the construct. Based on the results of the finding of this study, signify a positive impact of entrepreneurship education for stimulating the start-up intention in these interdisciplinary students of higher education Institutions.

## 2.6. Conclusion on Empirical Review and Gaps

On top of the review a number of papers the area of university student entrepreneurial intention research concludes that attitude toward the behavior; Subjective norms and perceived behavior control have a significant positive influence on entrepreneurial intentions of graduate student in Ethiopia. Nowadays, universities are near the enterprise lifestyles particularly university-enterprises collaboration has encouraged too many entrepreneurial motivation platforms. Several empirical studies have investigated to entrepreneurial intention among them some of which consider university students as a source of future entrepreneurs. This research focused on both internal and external factors, to examine the internal factors (innovativeness, risk taking, self-efficacy) determining entrepreneurial intentions of students. On the other hand to examine external factors (family background, access of finance, entrepreneurship education) determining entrepreneurial intentions of students. More specifically, the present study attempts to examine both internal and external factor influence on entrepreneurial intention among students of business and economics students as compared with institute of technology students in Jimma University. This study substantially expands our understanding of what drives the entrepreneurial intention. Thus, the present study aims to investigate the determinate factors students' entrepreneurial career intention in Jimma University business and technology field of study. In this context, current study main focus is on the impact of internal factor on students' intention towards innovativeness, risk taking, self-efficacy, while external factor also impact on students entrepreneurial intention towards

family background, access to finance, entrepreneurship education. Therefore, it is very important to examine the intention level of students who are future entrepreneurs and to reveal which determinate factor influence on students' entrepreneurial intention.

## 2.7 Conceptual Model

In TPB theory it was said that two factors influence human behavior that are internal and external (Hou et al., 2019) and (Cano & Tabares, 2017). The external dimension accounts for the perceived social norms, while internal dimension accounts for the perceived desirability and the perceived behavioral control. In external dimension explanations for perceived a social norm, which consists of in different context that includes to University context, Familiar context and Socio-cultural context. This paper regards university students so as university context the support of entrepreneurship activities will affect the attitude of students toward entrepreneurship the school level, this paper chooses entrepreneurship education as the one factor affecting entrepreneurial intention, on the other in familiar context, concerned with the influence family background level on university students, and the other factor on entrepreneurial intention focusing on external factors, access to finance has gradually become a research hot spot.

On the other hand internal dimension explanations for perceived desirability and perceived behavioral control, which are consists of in different context to include personal motivation, self-efficacy, and perceived controllability. In this paper regards personal motivation proposed that a key factor in generating entrepreneurial motivation and entrepreneurial desire is innovativeness, which can stimulate people's internal motivation and individual entrepreneurship, on the other context of personal controllability this involves the individual's control over risk that leads to risk taking, and the other factor entrepreneurial self-efficacy is of great importance to entrepreneurial behavior and entrepreneurship activities. The more self-confident university students are about their own abilities, the stronger their entrepreneurial intention will be.

As the model to show the relationship among variables indicates independent variables internal factors (innovativeness, risk taking and self-efficacy) and external factors (family background, access to finance, and entrepreneurship education) relationship to entrepreneurial intention. By taking the great role that an entrepreneurial intention has for the

birth of entrepreneurship, it is important to know the factors that determine entrepreneurial intention.
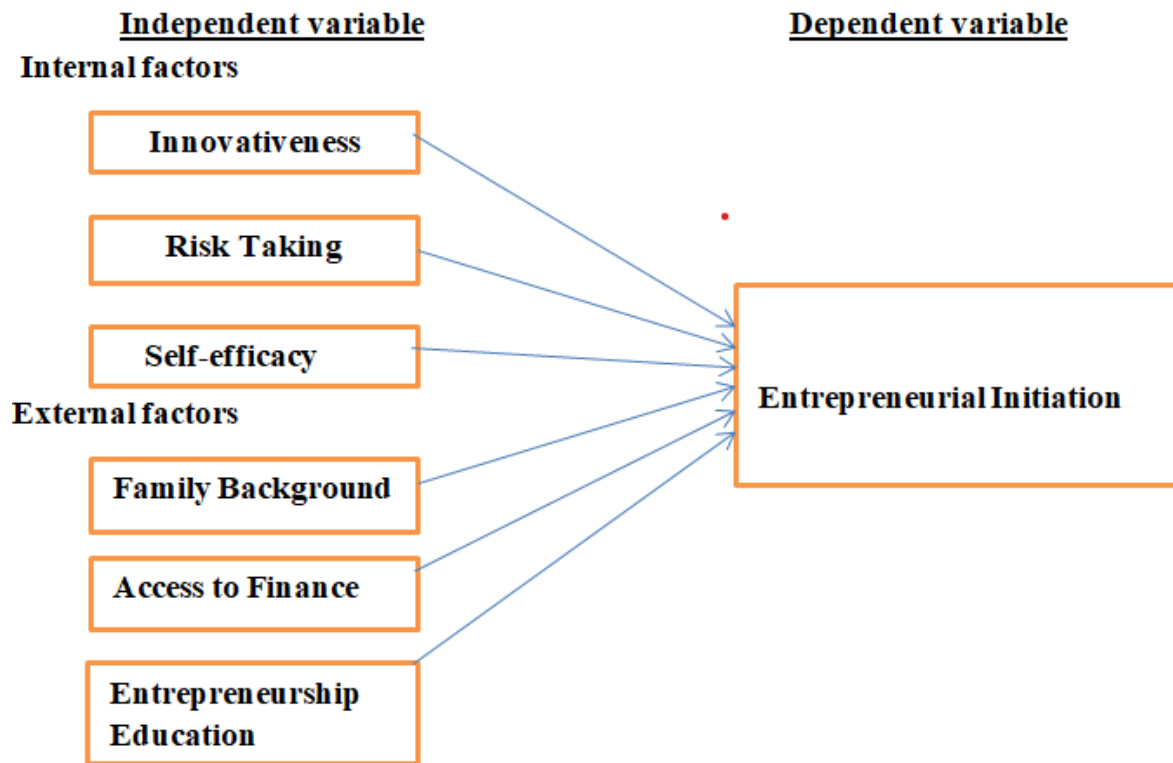


Source: researcher representation from literature review, (2021)

*Figure.2.1: Conceptual model*

# CHAPTER THREE

# RESEARCH DESIGN AND METHODOLOGY

This segment offers the overall research design, sample design (target population, sample size and sampling techniques), variables of the study, type and source of data, procedures of data collection and instruments, method of data analysis and ethical considerations of the study.

## 3.1 Study Area

Jimma University (JU) is one of a public higher educational institution established in December 1999 by the amalgamation of Jimma College of Agriculture (founded in 1952), and Jimma Institute of Health Sciences (established in 1983).The university located in Jimma city 352 km southwest of Addis Ababa. Jimma University is Ethiopia's firstly Innovative Community Oriented Education Institution of higher learning.

## 3.2 Research Design and Approach

This study used descriptive and explanatory research designs to examine the determinate factors on students' entrepreneurial intention. Descriptive research is used to describe characteristics of a population and used to understand the real reasons behind the phenomena. Therefore, descriptive design is appropriate in describing the characteristics population and ascertaining the status and features student's entrepreneurial intention. The study was employed explanatory research type study was examined the relationship between dependent variable and independent variable and measured the causal relationship that to what extent the dependent variable was explained by independent variable. Explanatory research design answers the question why some variables have an effect on other variables. In this research, it is set to find out the effect (independent variable) on the entrepreneurial intention (dependent variable) in case of Jimma University business and technology students.

The research approach to the study involves quantitative approach used to research answers questions, allowing for the collected of numerical data, the prediction, the measurement of variables, and the used of statistical procedures to analyzed and develop inferences from that data. The rational for the choice of quantitative research with cross sectional and descriptive survey method because this kind of research approach was provide relevant data about 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. Regarding to the time horizon to collect a data this research was used to a cross-sectional data because the nature of this study was a survey and it is appropriate for such a research strategy

## 3.3. Sampling design

A sample design is framework which provides the basis for establishing selection criterion for target population with structured and formal plan and methodology for selecting sample out of it for the study. This part contains target population, sample size and sampling techniques as discussed below.

## 3.3.1. Target Population

Jimma University has two institutes (institute of health and Jimma Institute of Technology (JIT)) and six colleges (college of agriculture, college of business and economics, college of social science and humanity, college of law and governance, college of education and behavioral science and college of natural science), out of this collage of business and economic and institute of technology have been selected for this study. The reason for selecting business and economics students are students have frequent exposure on theoretical aspects of business, more exposed to the entrepreneurial education and have an idea of the subject. In similar manner reason for selecting technology students is one of the student profiles which are best suited to the development of new technology based companies which strengthen the current corporate fabric, mainly in the technological sector and innovation and therefore contribute other creation of new jobs, there reducing the currently high unemployment rates.

The target populations of this study were collage of business and economics and institute of technology students of Jimma University and they are 1694 graduate students. In which 1298 (77%) are institute of technology and 396 (23%) are collage of business and economics students. After taking this, the researcher has to formulate other strata by department. Accordingly there are five stratums for business and economics collage and nine stratums for institute of technology students as shown in the table below.

Table 3.1: Total population of the study

| Business and Economics | | | Institution of technology | | |
|---|---|---|---|---|---|
| Department | N | % of N | Department | N | % of N |
| Accounting & Finance | 101 | 25.5% | Architecture and Urban Planning | 64 | 4.9% |
| Economics | 109 | 27.5 | Biomedical Engineering | 120 | 9.2% |
| Management | 112 | 28.23% | chemical Engineering | 98 | 7.55% |
| Banking and finance | 50 | 12.62% | Civil Engineering | 225 | 17.3% |
| Hospitality and Tourism | 24 | 6.15% | Electrical and Computer Engineering | 220 | 16.9% |
| | | | Hydraulics and Water Resources Engineering | 69 | 5.3% |
| | | | Material Science Engineering | 48 | 3.69% |
| | | | Mechanical Engineering | 195 | 15% |
| | | | Water Supply Engineering | 43 | 3.39% |
| | | | Software Engineering | 44 | 3.4% |
| | | | Computer Science | 83 | 6.4% |
| | | | Information technology | 48 | 3.4% |
| | | | Information science | 41 | 3.3% |
| Total | 396 | 100% | | 1298 | 100% |

Note; N= study population     Source: Jimma University Registrar office, 2021

## 3.3.2 Sample Size

A sample size is a portion of the study population which is sufficiently representative of the population for which research is going to be generalized on. In order for estimating the characteristics of a large population, an appropriate sample size has to be selected. This makes adequate number of sample size a very determinant factor establishing association in the study genuinely.

To draw the sample from the target population, the sample size determination formula of (Yamane, 1967) provides a simplified formula to calculate sample size. The formula applied with five percent (5%) error and ninety five percent (95%) confidence level to determine the sample size. His formula is presented as follows

$$n = \frac{N}{1+N(e)^2}$$

Where:    n is sample size

   N is population size

  e is the level of precision.

$$n = \frac{1694}{1+1694(0.05)^2}$$

Sample size (n) = 324 students

## 3.3.3 Sampling Technique

Kothari (2004), states that "If a population from which a sample was to be drawn a heterogeneous group, stratified sampling technique is generally applied in order to obtain a representative sample. In this study proportional stratified sampling technique was used because the characteristic of the target population was heterogeneous. Stratified random sampling was used because there are different departments for business and economics collage and as well as institute of technology and data needs to be collected from each departments considered each departments as strata. Sample from each departments were selected proportionally that was; depending on the number of students each department were in the population.

In order to do that a proportionate sampling technique was used. In this technique the number of sampling size was draw from each department in proportion to the population number of that department. The following formula was used to compute samples from each department.

$$nh = (\frac{Nh}{N})n$$

Where, nh is the sample size for department h, Nh is the population size for department h, N is total population size, and n is total sample size.

Table 3.2: Sample size proportion of Business and economics and institute of technology students

| Business and Economics(77)students | | | | Institute of Technology (247) students | | | |
|---|---|---|---|---|---|---|---|
| Department | N | N | % of n | Department | N | N | % of n |
| Accounting & Finance | 101 | 19 | 24.65% | Architecture and Urban Planning | 64 | 13 | 6.08% |
| Economics | 109 | 21 | 27.2% | Biomedical Engineering | 120 | 24 | 12% |
| Management | 112 | 22 | 28.5% | chemical Engineering | 98 | 18 | 8.7% |
| Banking and finance | 50 | 10 | 12.95% | Civil Engineering | 225 | 43 | 21% |
| Hospitality and Tourism | 24 | 5 | 6.8% | Electrical and Computer Engineering | 220 | 42 | 19.56% |
| | | | | Hydraulics and Water Resources Engineering | 69 | 13 | 6.5% |
| | | | | Material Science Engineering | 48 | 9 | 4.3% |
| | | | | Mechanical Engineering | 195 | 37 | 18.23% |
| | | | | Water Supply Engineering | 43 | 8 | 3.9% |
| | | | | Software Engineering | 44 | 8 | |
| | | | | Computer Science | 83 | 16 | |
| | | | | Information Technology | 48 | 9 | |
| | | | | Information Science | 41 | 7 | |
| Total | 396 | 77 | 100% | | 1298 | 247 | 100% |

**Note**: n=sample size, N=total population. Source researcher, 2020   Source: researcher, 2021

## 3.4 Source and Type of Data

The study used both primary and secondary data source. The reason of using the primary data is that the researcher has the choice to investigate via survey or questionnaire directly and indirectly, which is different from secondary data gathered from published or unpublished materials. Thus primary data is more accurate and reliable. Based on past findings, primary data provides satisfactory and adequate results for further investigations by adopting the

proper strategy of research design and data collection for the specific problems. Survey research method was used for this study through the distribution of copies of closed questionnaire with 1-5 Likert Scale (1= Strongly Disagree and 5= Strongly Agree) to collect necessary information from respondents. The sources of the primary data were Jimma University business and technology field of study students. Primary data was recognized as data was gathered for a specific research in response to a particular problem through questionnaires. While secondary data was collected from Jimma University register office.

## 3.5 Data Collection Method

A questionnaire was considered to a key tool in collected data and it is the most widely used tool in social research (Lancaster, 2005). It contains standardized questions whereby all respondents may understand these questions in the same way. Therefore, it is more suitable for descriptive and explanatory research which requires Likert scale questions (Saunders et al, 2009). Hence, the data was collected through questionnaire filled by the current graduate business and technology Jimma University students. Data was collected using self-administered questionnaires which are hand deliver and hand-collected from collage of Business and Economics and institute of technology students.

## 3.6 Method of Data Analysis

The collected data were first checked for its consistency, completeness, missing and other errors before the entry process. The data coding make ready the completed and correct questionnaire for analyzing process. A data entry template was organized and data entered in to the appropriately designed program for analysis. Therefore, data has been analyzed by descriptive and inferential statistics using Statistical Package for Social Science (SPSS-version 23). Descriptive statistical indexes like percentage, mean and standard deviation were used for analyzing. Similarly, inferential statistics such as correlation and multiple linear regressions were also used to identify the strength of relationship and the degree of prediction between independent variable and dependent variable (entrepreneurial intention).

## 3.7 Model Specification and Description of the study variables

An empirical model was used to test the relationship between the independent variables and dependent variables. Correlation was applied to know the relationship between entrepreneurial intention dimensions among themselves and with dependent variable

(entrepreneurial intention). Furthermore for this study, multiple linear regression models were employed as it allows simultaneous investigation on the effect of two or more variables. Entrepreneurial intention, dependent variable represented by (Y) while independent variable (X) represented by (innovativeness, risk taking, self-efficacy, family background, access of finance and entrepreneurship education).

The Mathematical Model of multiple regressions below can be used to determine the quantitative relationship between the variables:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$

   Where:

Y = dependent Variable,

$\alpha$ = Regression Constant

$\beta$ = Regression Coefficients

$X_n$= Represents the Independent Variables in the estimation model

$\varepsilon$ = Represents the error term

**Assumption Tests**

Beforehand applying multiple linear regression models, different assumption tests were measured to ensure the appropriate use of data analysis. Those assumption tests include the normality test, linearity test, Multicolinearity tests and hetroscedastcity test. Finally, based on those tests there was no normality linearity, Multicolinearity and hetroscedastcity tests problem to precede to the multiple linear regressions analysis.

**Independent sample test**

The independent sample test was conducted to make a comparison between business and technology students of Jimma University.  On the hand to know whether there is statistically significant entrepreneurial intention difference between business and technology students of Jimma University which was included under the study.

## 3.8 Validity and Reliability

### 3.8.1 Validity

In order to ensure the quality of the research design content and construct validity of the study was checked. Validity is essential to assess whether the matter of the measure is representative of the overall content of the concept being measured and how accurately the

scale development process is followed ( Bryman & Bell, 2007). A measure's validity relies on the definitions of the variable which is used to design the measure. Standardized questionnaire questions were formulated carefully and rewritten after consulting with advisors and other experts of the field. And it's precision in measuring the true values of features and relationship of variables under consideration in this study is accurate.

## 3.8.2 Reliability

Reliability is the extent to which a test measured consistently regardless of what it measured or whether or not a test produced the same results on different occasions (Bordens & Abbott, 2014). The measure was reliable when respondents gave the same answer in different situations. A question might be unreliable because it contained words which could be misunderstood and, consequently, which might cause confusion. Researchers use multiple-item indicators to create reliable indicators. The values of Cronbach's alpha range from 0 (observed items are not consistent) to 1 (they completely correlate). This means that internal consistency will be acceptable if Cronbach's alpha is equal to or above 0.70 or 0.60.

45 questionnaires were distributed and collected, and finally subjected to analysis in SPSS to test for reliability in terms of Cronbach's Alpha. Cronbach's Alpha coefficient is an indicator of internal consistency of the scale. A value of Cronbach's Alpha above 0.70 can be used as a reasonable test of scale reliability. Reliability analysis (Cronbach's Alpha) was carried out on each of the dimensions of entrepreneurial intention which were then compared to the conventional cut-off point of 0.70. And Cronbach's Alpha coefficient of all independent and dependent variables are greater than 0.70 as shown in table 3.3 below.

Table .3.3: Cronbach's Alpha Reliability Coefficients

| *Dimension* | *No of Items* | *Cronbach's Alpha* |
|---|---|---|
| Innovativeness | 6 | 0.821 |
| Risk taking | 6 | 0.850 |
| Self-efficacy | 6 | 0.833 |
| Family background | 4 | 0.763 |
| Access of finance | 4 | 0.860 |
| Entrepreneurship education | 6 | 0.810 |
| Entrepreneurial initiation | 8 | 0.808 |

Based on the findings of Cronbach's Alpha Reliability Coefficients value  above on table 3.3, all the independent variables (Innovativeness, Risk taking, Self- efficacy, Family background, Access of finance, Entrepreneurship education) has Cronbach's alpha value of 0.821, 0.850, 0.833, 0.763, 0.860,and 0.810 respectively, which is greater than 0.70. On the other hand the Cronbach's Alpha value of the dependent variable (entrepreneurial initiation) is also 0.808, which is also greater than 0.7. Based on Cronbach's Alpha reliability coefficients value we can conclude that the instrument was reliable to investigate the case under this study.

## 3.9 Ethical Consideration

In this study, issues relating to the ethical conduct of research such as informed consent, confidentiality, privacy and anonymity were upheld. Informed consent –Cover letters explain the purpose of the questionnaire and the right to accept or refuse to participate in the research activities be given to the respondents of this study. As well as explaining the purpose of the study and for what purpose the study is conducted. As per respondents, all principles of general ethics were applied starting by keeping confidentiality of the respondents be assured that they not be confused and that their response remain confidential. The information they provide is confidential and used for academic purpose only. And also that was reassured by making questionnaire to be filled anonymously and no way to trace and making respondents' security was priority and out-most seriously considered thing, too. It was accomplished with remarkable success regarding keeping research in line with ethical principles.

# CHAPTER FOUR

# RESULTS AND DISCASSIONS

## Introduction

This chapter contains parts which start with results an overview of the respondent profile and data distribution using descriptive statistics in order to visualize the result more clearly. And also it further continues depicting descriptive statistics of each variable with respective interpretation and discussions about results of analysis. Then it goes to a part where correlation results between variables are displayed and its interpretations are discussed. Generally, this part of the paper discussed about descriptive statistics, correlation and multiple regression analysis with respective discussion of results.

## 4.1 Demographic Characteristics of Respondent

The population for this study was final year regular graduate collage of business and economics and institute of technology in Jimma University students. The total targeted population was 1694 students. From which, 324 sample were selected through stratified random sampling techniques and the questionnaires were administered by the researcher. From the total distributed questionnaires 295 were returned and 29 were not returned which means response rate of 91%. This response rate is attributed to the fact that the questionnaires schedule was well administered. Moreover, the data were collected by trained data collectors and the researcher contacted with the respondents.

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 are regarding to gender, age, collage and career choice 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 Characteristics of Respondents*

| Demographic | | Respondents | |
|---|---|---|---|
| Items | | Frequency | Percentage |
| Sex | Male | 180 | 61.0 |
| | Female | 115 | 39.0 |
| | Total | 295 | 100.0 |
| Age | 18-23 | 152 | 51.6 |
| | 24-29 | 130 | 44.0 |
| | 30-35 | 13 | 4.4 |
| | Above 35 | - | - |
| | Total | 295 | 100.0 |
| Respondents collage | BECO | 63 | 21.4 |
| | JIT | 232 | 78.6 |
| | Total | 295 | 100.0 |
| Respondents career choice | Employee | 129 | 43.75 |
| | Self-employed | 138 | 46.75 |
| | No plan | 28 | 9.5 |
| | Total | 295 | 100.0 |

Source: researcher survey, computed in SPSS, 2021

From table 4.1, gender composition indicates that in Jimma University business and technology field of study students , all the participants of this research are 295 and from the respondents 180 (61%) of the respondents were males which make them to be a higher in number than that of females which were 115 in number taking (39 %) from the total respondents. From the finding concluded that more of the respondents were male students.

Regarding to age category, the highest number of respondents fall under the age group of 18-23 years, which accounts 152 (51.6%) of the total sample. Accordingly,130 (44%) respondents are at the age of between 24-29 years, whereas 13 (14.4%) 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 none of respondent in this age group. In this regard, it can be observed that almost majority of the population (91.6%) in the graduating class students of the university are below 30 years of age.

On the other hand collage distribution 63(21.4%) of the respondent are Collage of Business and Economics (BECO) students and 232 (78.6%) of the respondents are Institute of Technology (JIT) graduate students. This shows majority of the respondents are institute of technology (JIT).

As shown in table 4.1 above, 129 (43.75%) of the respondent career choice are employee, this indicates the respondents do not want to be entrepreneur rather they prefer to work as employee in different institutions. 138 (46.75%) of the respondent career choice are self-employed, this indicates most of the respondent want to pursue entrepreneurship or to become self-employed. On the contrary, 28(9.5%) of the respondent have no plan what they pursue after graduation. This shows majority of the respondents are want to become self-employed as career option after graduation when compared with other career options.

## 4.2 Descriptive Statistics for Entrepreneurial Intention

This section deals with Students Entrepreneurial Intention in higher Education. The data collected on Students Entrepreneurial Intention was entered to Statistical Package for Social Sciences (SPSS) version 23 and coded by using 1 - 5 Likert scale statements. To select extent of agreement to closed ended questions a scale of 1 to 5 where strongly agree was coded as 5, agree as to 4, neutral as to 3 ,disagree as to 2,and strongly disagree as 1 for data simplification. The measures of central tendency and dispersion results obtained from the sample respondents. Mean score range for five-scale Likert's response, Mean response from 1.00 up to 1.80 indicates that the response is 'Strongly disagree', from 1.81 up to 2.60 indicates the response 'Disagree', from 2.61 up to 3.40 indicates that the response is 'neither disagree nor agree', mean score range from 3.41 to 4.20 indicates response 'Agree' and finally range from 4.21 up to 5.00 indicates 'strongly agree'(Al-Sayaad et al., 2006). Tables below contain descriptive data (mean and standard deviation) for each entrepreneurial intention.

*Table 4.2: Descriptive statics Entrepreneurial Intention*

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| I have strong intention to start my own business after completing my study | 295 | 4.29 | .904 |
| I prefer to be an entrepreneur rather than to be an employee in a company. | 295 | 4.27 | .977 |
| I will make every effort to start my own business | 295 | 4.17 | 1.218 |
| I'm ready to make anything to be an entrepreneur | 295 | 4.13 | .840 |
| I am determined to create a business venture in the future | 295 | 4.06 | .885 |
| I have very seriously thought in starting a firm | 295 | 3.62 | .828 |
| I have got the firm intention to start a firm some day | 295 | 3.53 | 1.046 |
| I am mentally mature to start my own business | 295 | 3.01 | .929 |
| **Overall Entrepreneurial intentions index** | | **3.88** | **.912** |

Source: researcher survey, computed in SPSS, 2021

The results in Table 4.2 show the mean and standard deviations for entrepreneurial intentions. The mean score explains the central tendency of entrepreneurial intention, whilst the standard deviation describes the variation in the opinions of the respondents. A five point Likert scale was used to measure the entrepreneurial intentions of the respondents. A high mean score shows that majority of the participants agree whilst a low mean score shows that they disagreed with the question. The results indicate that the students have moderate entrepreneurial intention, with the overall (mean index = 3.88; SD =.912). These findings are in line with the study of Ozaralli & Rivenburgh (2016), found that students have moderate to low entrepreneurial intention.

## 4.3 Determinants of Entrepreneurial Intentions

This section of the study explains the descriptive statistics calculated on the basis of the variables included in study questionnaires. The table below shows mean and standard deviation for the determinants of university students entrepreneurial intentions namely; as internal factor (innovativeness, risk taking and self-efficacy) and external factors (family background, access of finance and entrepreneurship education).

*Table 4.3: Descriptive statistics for the dimensions of innovativeness*

| Items | Mean | Std. Devotion |
|---|---|---|
| I like to experiment with various ways of doing the same thing | 4.32 | .873 |
| I hope to develop new techniques in my field of work. | 3.99 | .982 |
| I prefer to implement new ideas than existing ones. | 3.89 | 1.041 |
| I like the job which demands innovativeness rather than skill. | 3.68 | 1.056 |
| I have a capacity to create new ideas. | 3.40 | 1.276 |
| I often surprise people with my novel ideas. | 3.16 | 1.306 |
| **Overall innovativeness index** | **3.74** | **1.14** |

Source: researcher survey, computed in SPSS, 2021

The respondents were asked 6 questions relating to innovativeness factors as shown in table 4.3 above. In regards with their preference direction of innovativeness, "I like the job which demands innovativeness rather than skill", "I prefer to implement new ideas than existing ones" and "I like to experiment with various ways of doing the same thing" with the mean rated of lowest 3.68, 3.89 and 4.32 respectively. Based on the mean rated result 3.89 prefer to implement new ideas than existing one who would like to prefer implement new ideas. On the other hand "I like to experiment with various ways of doing the same thing" with the mean 4.32 this indicates most students to like experiment various work to do. The last item regarding to preference "I like the job which demands innovativeness rather than skill" with the mean 3.68 this indicates more related majority of respondents agree with the preference of innovativeness rather than skill.

In regarding with related ness of innovativeness and field of study "I hope to develop new techniques in my field of study" with mean rated 3.99 and in regarding with capacity or performance of students related innovativeness, "I often surprise people with my novel ideas" and, "I have a capacity to create new idea" with the average means of lowest, 3.16, and 3.40 respectively. This indicates more than the average students the potential or capacity create new idea rather than people to surprise novel idea.

The six indicators of innovativeness among undergraduate students' the results show that the overall (mean = 3.74; SD= 1.17) the results present the mean and standard deviations of the impact of innovativeness on the entrepreneurial intentions of the respondents. This indicates the above questions are highly relevant with regard to innovativeness and reflect how entrepreneurs utilize creativity to develop new businesses.

*Table 4.4: Descriptive statistics for the dimensions of Risk taking*

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| I would be uncertain to put my money into a new business that could fail a venture | 295 | 4.42 | .904 |
| I always consider security as an essential element in every phase of my life | 295 | 4.30 | .808 |
| The risks involved in setting up a business are too high | 295 | 4.23 | .872 |
| Entrepreneurial activity is considered too risky to be worthwhile | 295 | 3.99 | 1.013 |
| I will do very well in difficult tasks relating to my job | 295 | 2.93 | 1.327 |
| I rather enjoy going against the rules and doing things I'm not supposed to do | 295 | 2.67 | 1.306 |
| **Risk taking propensity index** | | **3.75** | **1.012** |

Source: researcher survey, computed in SPSS, 2021

Regarding to Willingness to take risks: Risk lover that indicates in three questions, "I rather enjoy going against the rules and doing things I'm not supposed to do", and "I will do very well in difficult tasks relating to my job" with the average means of lowest 2.67, and 2.93 respectively. This indicates most students related disagree with risk lover questions.

On the other hand regarding to Willingness to take risks: Risk Free to measure three questions, "Entrepreneurial activity is considered too risky to be worthwhile", "The risks involved in setting up a business are too high" and "I always consider security as an essential element in every phase of my life" "I would be uncertain to put my money into a new business that could fail a venture" with mean rated 3.99, 4.23, 4.3 and 4.42 respectively.

Table (4.4) shows the mean and standard deviation of risk- taking with measurement of six questions. Risk-taking propensity (mean=3.75; SD=1.012) this suggests that students are risk averse and hence are not willing to take part in any entrepreneurial activity. Therefore from the above finding it is possible to conclude that the majority of the students have risk

frightening or low risk taking propensity. This finding consistency with Zhao et al, (2010) found that students have a low level of risk-taking propensity.

*Table 4.5: Descriptive statistics for the dimensions of self-efficacy*

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| I am confident that I can perform effectively on many different tasks. | 295 | 3.86 | 1.093 |
| I am confident of my skills and abilities to start a business. | 295 | 3.76 | 1.250 |
| I feel confident that I can succeed in any business activities. | 295 | 3.58 | 1.263 |
| I am delighted to face the challenges of creating a new business. | 295 | 3.51 | 1.241 |
| Even when things are tough, I can perform quite well. | 295 | 3.42 | 1.106 |
| When I am doing something difficult, I feel confident that I will succeed. | 295 | 3.45 | 1.293 |
| **Overall self-efficacy mean index** | | **3.56** | **1.023** |

Source: researcher survey, computed in SPSS, 2021

Regarding to self-efficacy: self-confidence measures three questions, "When I am doing something difficult, I feel confident that I will succeed", "I am confident of my skills and abilities to start a business", and "I feel confident that I can succeed in any business activities" with the mean rated 3.45, 3.76, and 3.58 respectively.

In a similar manner self-efficacy regarding to need for achievement and self-esteem; "I am delighted to face the challenges of creating a new business", "Even when things are tough, I can perform quite well", and "I am confident that I can perform effectively on many different tasks" rated mean rated 3.51, 3.42, and 3.86 respectively. That means almost most respondents agreed that perceived self-efficacy factors affected their entrepreneurial intentions since the mean approaches to agree with to stare new entrepreneurial venture self-esteem and need for achievement.

The respondents were asked six questions relating to entrepreneurial self-efficacy as the results in Table 4.5 show the mean score and standard deviation of the variables of entrepreneurial self-efficacy that confidence of new business start-up. The overall mean index for self-efficacy is 3.56 showing that the students have a moderate entrepreneurial self-efficacy.

*Table 4.6: Descriptive statistics for the dimensions of Family Background*

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| I believe that family's background has a contribution to a person's entrepreneurial intentions. | 295 | 3.89 | 1.202 |
| I think family background is a good complement to my professional background that can help me to start a business. | 295 | 3.68 | 1.056 |
| My immediate family would approve of my decision to start a business. | 295 | 3.50 | 1.046 |
| I believe my closest family members think that I should pursue a career as an entrepreneur. | 295 | 3.46 | 1.105 |
| **Overall family background index** | | **3.63** | **1.067** |

Source: researcher survey, computed in SPSS, 2021

Regarding to the higher education students family background towards entrepreneurial intention the respondents were asked 4 questions. The four item most related influence of family background to start business with choices as Parents and Family, Friends and Career advisors on entrepreneurial intention "I believe my closest family members think that I should pursue a career as an entrepreneur", "My immediate family would approve of my decision to start a business", and "I think family background is a good complement to my professional background" "I believe that family's background has a contribution to a person's entrepreneurial intentions" with mean rated 3.46, 3.5, 3.68 and 3.89 respectively.

Table 4.6 shows the mean score and standard deviation of the variables of family background for contribution students' intention to start-up new business. The overall mean index for family background (mean= 3.63, SD=1.067) showing that the students have a moderate entrepreneurial self-efficacy. Therefore from the above result we can conclude that the majority of the respondents have related to agree family background positive influence on students entrepreneurial intention.

*Table 4.7: Descriptive statistics for the dimensions of access to finance*

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| It is hard to start one's own business due to the availability of financial resources. | 295 | 4.25 | .873 |
| If I were to start my own business, I know that banks and financial institutions will charge high interest rates to my new business. | 295 | 4.17 | 1.010 |
| If I were to start my own business, I know how to use financial information to make business decisions. | 295 | 3.48 | 1.096 |
| Financial institutions are ready to give required finance to start business. | 295 | 3.41 | 1.026 |
| **Overall access of finance index** | | **3.82** | **.995** |

Source: researcher survey, computed in SPSS, 2021

In regarding to availability of access to finance, "It is hard to start one's own business due to the availability of financial resources" and "If I were to start my own business, I know that banks and financial institutions will charge high interest rates to my new business" "Financial institutions are ready to give required finance to start business" with a mean rated 4.25, 4.17 and 3.41 respectively. On the other hand for regarding on financial knowledge and skill "If I were to start my own business, I know how to use financial information to make business decisions" with mean rated 3.48.

The results in Table 4.7 the overall mean index for perceived access of finance was 3.82 with a standard deviation of 0.995. The results show that availability access of finance and financial knowledge and skills are the two factors, which the students perceive to strong impact on their accessibility of obtaining finance. This is in line with the findings of Ayalew (2018), who highlighted that many university students' challenges when trying to access funds from financial institutions.

*Table 4.8: Descriptive statistics for the dimensions of entrepreneurship education*

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| My school education helped me to better understand the role of entrepreneurs in society | 295 | 4.26 | .892 |
| I think entrepreneurship course would give me more ideas and opportunities to start a business | 295 | 4.01 | 1.000 |
| My school education made me interested to become an entrepreneur | 295 | 3.86 | 1.161 |
| My school education gave me skills and know-how that enable me to run a business | 295 | 3.82 | 1.103 |
| Recognition of the entrepreneur's figure | 295 | 3.42 | 1.162 |
| Knowledge about the entrepreneurial environment | 295 | 3.13 | 1.233 |
| **Overall entrepreneurship education index** | | **3.75** | **1.19** |

Source: researcher survey, computed in SPSS, 2021

Regarding to the higher education students entrepreneurship education toward entrepreneurial intention the respondents were asked 6 questions. In this regard importance and role of entrepreneurship education "My school education made me interested to become an entrepreneur", "My school education helped me to better understand the role of entrepreneurs in society", and "I think entrepreneurship course would give me more ideas and opportunities to start a business" with mean rated Likert scale 3.86, 4.26, and 4.01 respectively. This indicates in average most respondents agree with the above questions.

On the other hand regarding knowledge, skill, and recognition about entrepreneurship education, "My school education gave me skills and know-how that enable me to run a business", "Recognition of the entrepreneur's figure", and "Knowledge about the entrepreneurial environment" with rated 3.82, 3.42, and 3.13 respectively. This indicates low know-how, recognition and knowledge about entrepreneurship education.

The results in Table 4.8 the overall mean index for entrepreneurship education was 3.75 with a standard deviation of 1.19. The results show that student's attitude toward entrepreneurship was about related to agree influence of entrepreneurship education on entrepreneurial intention. That means almost all respondents have good attitude on the importance, role, and of entrepreneurship toward being entrepreneur.

## 4.4 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 (plus1), or a perfect negative correlation which would -1 (minus 1). The correlation coefficient is a measure of strength of the relationship (among different variables) that lies between -1 and 1. According to Saunders et al (2009), 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**:** If the correlation coefficient **(r)** 0.01 - 0.29 the of relationship is weak, when correlation coefficient (r) 0.30 - 0.49 the relationship is medium/moderate and when the correlation coefficient (r) 0.50 - 1.0, the strength of relationship is strong. The negative sign indicates that as the score of one variable increase, the score of the other variable decreases. A correlation coefficient of 1 or -1 indicates the strong relationship and the Pearson correlation coefficient (r) of zero or if it is very close to zero, it shows as there is no relationship/very weak relationship between variables. So, the correlation results of this study are analyzed based on the above correlation coefficient standards of cooper.

## 4.4.1 The Relationship among EI Dimensions

There is relationship among the entrepreneurial intention dimension (innovativeness, risk taking, self-efficacy, family ground, access of finance and entrepreneurship education).

*Table 4.9: Correlations between EI dimension and N=295*

| EI dimension | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Innovativeness | 1 | | | | | |
| 2. Risk taking | .601** | 1 | | | | |
| 3. Self-efficacy | .582** | .753** | 1 | | | |
| 4. Family background | .368** | .525** | .527** | 1 | | |
| 5. Access of finance | .393** | .636** | .574** | .401** | 1 | |
| 6. Entrepreneurship education | .428** | .502** | .560** | .544** | .640** | 1 |

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

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

Source: researcher survey, computed in SPSS, 2021

As shown in table 4.9 above, innovativeness has relationship with the other five independent variables, risk taking, self-efficacy, family background, access of finance and entrepreneurship education evaluation for correlations with r = 0.601,0.582 , 0.368 , 0.393 and 0.428 respectively. When their relationship compared, the relationship between innovativeness and risk taking (0.601), and self-efficacy (0.582) strong relationship and family background (0.368), and access of finance (0.394), and entrepreneurship education (0.428) are moderate relationship. In the other hand risk taking has relationship with self-efficacy, family background, access of finance and entrepreneurship education with r = 0.753, 0.525, 0.636 and 0.502 respectively. And also self-efficacy has relationship with family background, access of finance and entrepreneurship education with r= 0.527,574 and 0.560 respectively. In similar manner family background has a relationship with access of finance and entrepreneurship education with r=0.401 and 0.544 respectively. Finally access of finance has relationship with entrepreneurship education with r = 0.640. Therefore, all the independent variables have positive relationships.

## 4.4.2 The Relationship between Overall EI Dimension and EI

Correlation analysis in table 4.10 below shows was performed to determine if there were any relationships between the independent variables (innovativeness, risk taking, self-efficacy, Family background, access of finance and entrepreneurship education) and the dependent variable (entrepreneurial initiation).

*Table 4.10: Correlations between EI dimension and EI N=295*

| EI dimension | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 1.Innovativeness | 1 | | | | | | |
| 2. Risk taking | .601$^{**}$ | 1 | | | | | |
| 3. Self-efficacy | .582$^{**}$ | .753$^{**}$ | 1 | | | | |
| 4. Family background | .368$^{**}$ | .525$^{**}$ | .527$^{**}$ | 1 | | | |
| 5. Access of finance | .393$^{**}$ | .636$^{**}$ | .574$^{**}$ | .401$^{**}$ | 1 | | |
| 6. Entrepreneurship education | .428$^{**}$ | .502$^{**}$ | .560$^{**}$ | .544$^{**}$ | .640$^{**}$ | 1 | |
| 7. **Entrepreneurial intention** | **.458$^{**}$** | **.656$^{**}$** | **.680$^{**}$** | **.473$^{**}$** | **.662$^{**}$** | **.652$^{**}$** | **1** |

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

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

Source: researcher survey, computed in SPSS, 2021

Innovativeness is positively correlated to entrepreneurial intention with a Pearson correlation coefficient of r=.458 and Sig. (2tailed) is 0.000 which is <0.05 so that, there is a moderate relationship between the two variables.

The results of the Pearson correlation analysis also revealed a positive correlation between risk taking and entrepreneurial intention with a correlation coefficient of r =.656 and Sig. (2tailed) is 0.000 which is >0.05 so that, which implies a strong relationship between the variables.

Self-efficacy is positively correlated to entrepreneurial intention with a Pearson correlation coefficient of r=.680 and Sig. (2tailed) is 0.000 which is >0.05 so that, there is a strong relationship between the two variables.

Family background is positively correlated to entrepreneurial intention with a Pearson correlation coefficient of r=.473 and Sig. (2tailed) is 0.000 which is <0.05 so that, there is a moderate relationship between the two variables.

The results of the Pearson correlation analysis also revealed a positive correlation between access of finance and entrepreneurial intention with a correlation coefficient of r =.662 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 entrepreneurship education (r =.652, p >0.05) which implies a strong relationship between the two variables.

Thus, the analysis indicated that (risk-taking, self-efficacy, access of finance, entrepreneurship education) which are a strong correlated variable with the dependent variable _entrepreneurial intention_ (r = .656, .680, .662 and .652) respectively and all Sig. (2tailed) is 0.000 which is >0.05) there was also a moderate positive relationship between innovativeness and family background with the dependent variable _entrepreneurial intention with the correlation coefficient of (r = .458 , p <0.05) and (r = .473 , p<0.05) respectively.

## 4.5. Multiple linear regressions

Multiple regression analysis was conducted to find out the effect of internal factor (innovativeness, risk taking and self-efficacy) and external factor (family background, access

of finance and entrepreneurship education) on students entrepreneurial intention. It gives more detailed analysis as it enabled the examination of the influence of each of the independent variables on dependent variables, controlling for all other factors. It also allowed the researcher to determine the combined effect of the variables(Gay et al,. 2009). Multiple linear regression analysis is a well-known statistical technique which fits a relationship between one dependent and more than one independent variable. Accordingly, model summary, an analysis of variance (ANOVA) and regression coefficient for the dependent variables were discussed under this sub-section.

In this section and the subsequent sections on regression results, the coefficient of determination (R square) was used as a measure of the explanatory influence to show how the independent variables explain the dependent variable. The F statistics (ANOVA) was used as a measure of the model goodness of fit. Pearson correlation and the regression coefficient summary were used to explain the nature of the relationship between the dependent and independent variables. The significance levels of the regression results were also taken into account for proper interpretations.

## 4.5.1 Assumption tests

Testing assumption of multiple linear regression analysis models is very important before running regression analysis. Therefore each assumption results were discussed in the following sub topics. In the above section of this paper the descriptive and correlation analysis was carried out separately with the existence of association between the dependent and independent variables with the intension of examine the relationship between dimension of independent variables and dependent variables (entrepreneurial intention) in Jimma University business and technology field of study students. Therefore, the determinant of each independent variable must be assessed and identified sequentially. The study used multiple linear regression models assumptions as follow.

## 4.5.1.1 Graphical test of normality

Normality assumption is around the mean of the residuals is zero and used to determine whether a data set is well modeled by a normal distribution or not and also to indicate un underlying random variable is to be normally distributed (Gujarati., 2009). There the researcher was used histogram methods of testing the normality of the data. If the residuals

are normally distributed about its mean of zero, the shape of histogram should be a bell-shaped and regression standardized residual plotted between -3.3 and 3.3. From the figure below data normality can be indicated.
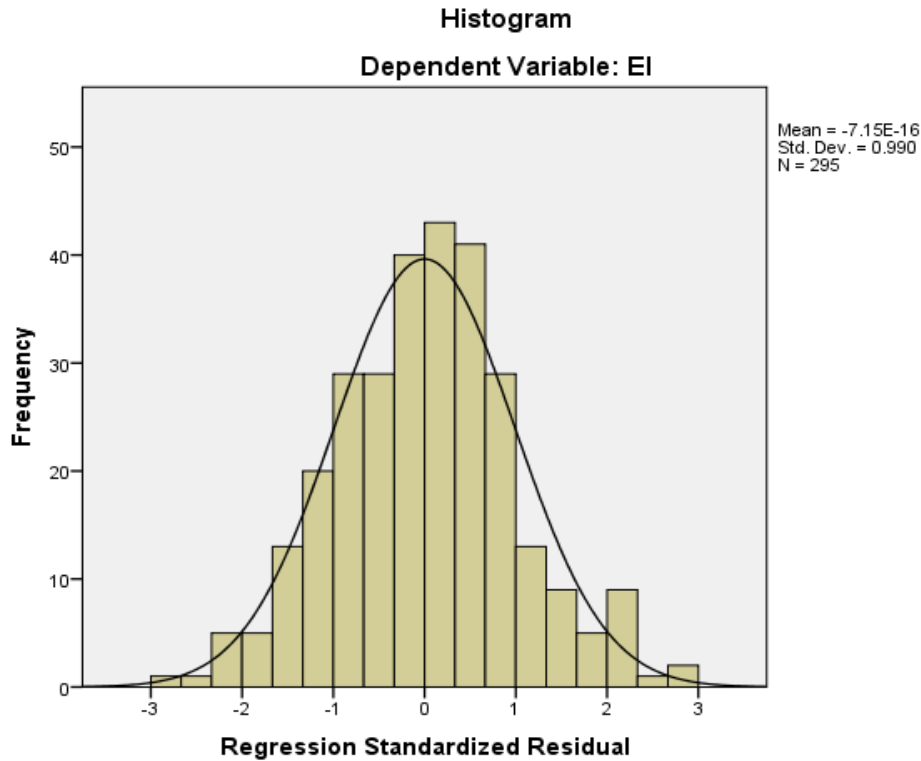


Source: researcher survey, computed in SPSS, 2021

*Figure 4.1: The regression model assumption of normality in the study*

Figure 4.1above shows the underlying frequency distribution that look like bell-shaped curve. a normal distribution looks like a symmetric bell- shaped curve, and the mean, median, and mode are equal or close to each other.

## 4.5.1.2 Linearity Test

Linearity is used to check whether all the estimates of regression including regression coefficients, standard errors and tests of statistical significance are biased or not (Keith, 2006). In addition to linearity refers to the degree to which the change in the dependent variable in this study (entrepreneurial intention) is related to the change in the independent variables. To determine whether the relationship between the independent variables; innovativeness, risk-taking, self-efficacy, family background, access of finance, and entrepreneurship education and dependent variable, entrepreneurial intention is linear; by

using plots of the regression residuals SPSS software. In case of linearity, the residuals should have a straight line relationship with predicted dependent variable scores.
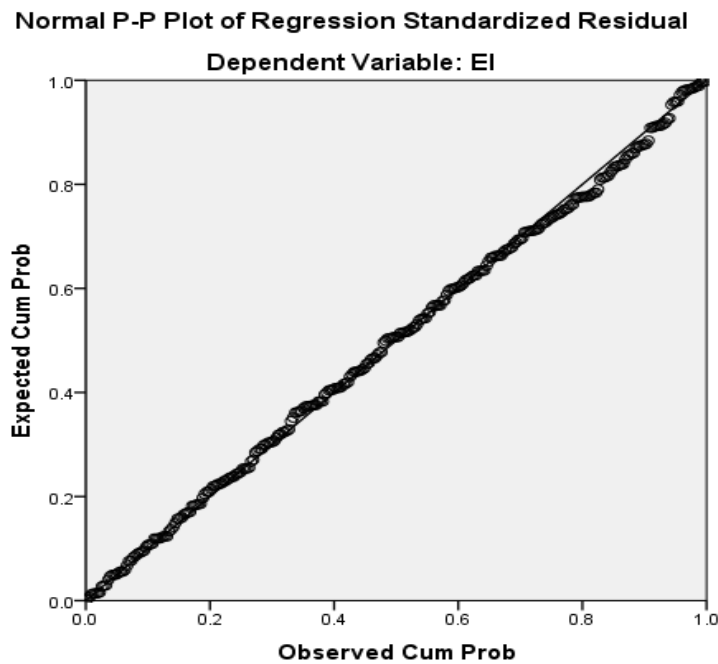


Source: researcher survey, computed in SPSS, 2021

*Figure 4.2: plot of standardized residuals*

The normal probability plot shows some deviations from normality. The straight line in this figure indicates 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 4.2, the dots are closely plotted to the straight line; there is high likelihood that the data are normally distributed and linear.

## 4.5.1.3 Hetroscedastcity Test

Hetroscedastcity mean that the error variance around predicted scores is different for all predicted values under the study.it used to test the violation assumption of the regression analysis. And also hetroscedastcity is the equality or violation of the residuals for every set of values for independent variables. Hetroscedastcity problem exist when scatter plots is greater than 3.3 and less than -3.3. Therefore, as it was indicated in figure 4.3 below the data did not violate hetroscedastcity assumption and instead it was homoscedastic.

**Scatterplot**

**Dependent Variable: EI**
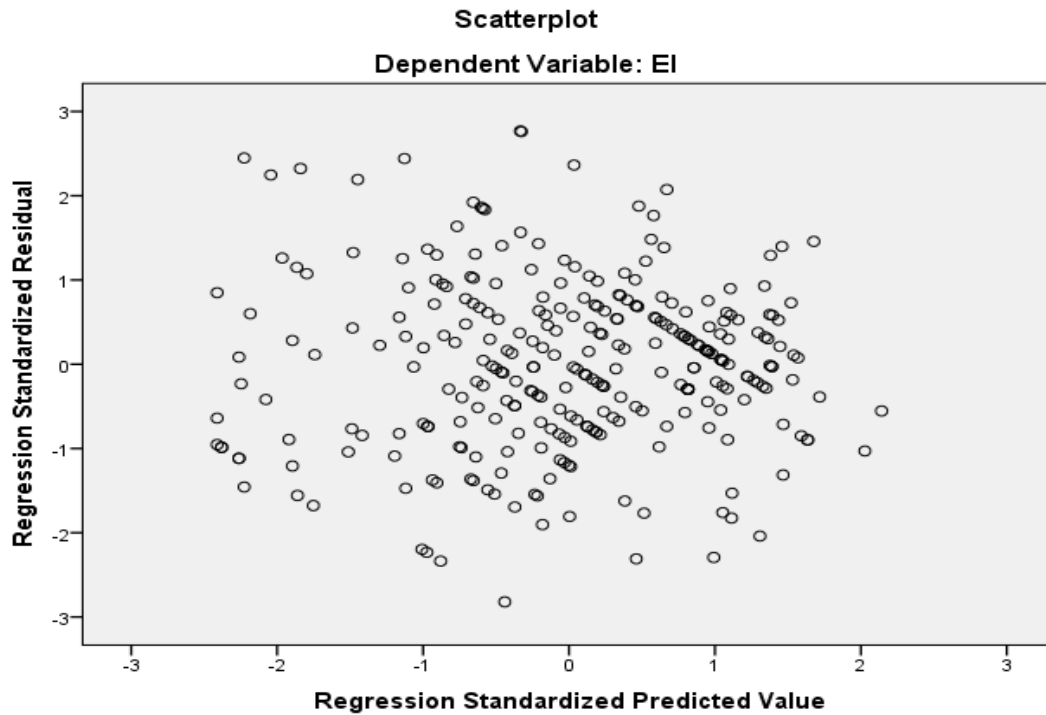
Source: researcher survey, computed in SPSS, 2021

*Figure 4.3: The regression model assumption hetroscedastcity*

## 4.5.1.4 Multi-co linearity Test

In regression analysis, multi co linearity occurs when independent variables in the regression model is 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. 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 1.11: Collinearity Statistics*

**Coefficients<sup>a</sup>**

| Model | Collinearity Statistics | |
|---|---|---|
| | Tolerance | VIF |
| Innovativeness | .790 | 1.256 |
| Risk taking | .569 | 1.757 |
| Self-efficacy | .537 | 1.862 |
| Family background | .776 | 1.288 |
| Access of finance | .561 | 1.782 |
| Entrepreneurship education | .574 | 1.742 |

Source: researcher survey, computed in SPSS, 202

a. Dependent Variable: Entrepreneurial initiation

b. Independent variables: INN, RT, SE, FB, AF, ED

Table 4.11 above shows that value of tolerance of each independent variable ranges from 0.537 to 0.790 and the value of variance inflation (VIF) factor ranges from 1.256 to 1.862, 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. In this study, VIF and tolerance to diagnosis multicolinearity, the correlation matrix of observed variables provides the correlation coefficients between a single variable and the other variables

As stated by (Keith, 2006) ,Tolerance is a statistical tool which indicates the variability of the specified independent variable from other independent variables in the model and it has no Multicolinearity problem if the tolerance is greater than 0.10 values. The results of Tolerance and VIF suggest that Multicolinearity is not suspected between the independent variables because the values of Variance Inflation Factors (VIF) are below 10 while the tolerance values are above 0.10.

## 4.5.2. Results multiple linear Regression

After the model assumption was checked presentation and interpretation of the analysis output is mandatory. The prediction or estimation of the value one variable (the dependent or the predicted variable; called as Y from one or more independent or predictor variables (called as X) (Keith, 2006).

The model employed in this study is tested for assumptions of multiple linear regression such as normality, multicolinearity, linearity, hetroscedastcity and the model satisfy the multiple linear regression model assumptions that indicated are free to conduct the regression analysis and conclude results for the population.

Table 4.12: Model Summary

Model Summary[b]

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---|----------|-------------------|----------------------------|
| 1 | .743[a] | .553 | .543 | .41618 |

Source: researcher survey, computed in SPSS, 2021

a. Predictors: (Constant), innovativeness, risk taking, self- efficacy, family background , entrepreneurship education
b. Dependent variable: entrepreneurial intention

Table 4.12 above shows, the R value obtained by regression was .743 which implies that the correlation between the all independent variables, entrepreneurial intention dimension and dependent variable, entrepreneurial intention is 0.743 that is means there is strong positive significant relationship between independent variable and dependent variable. And the Adjusted R square value was .553 which means that 55.3% variations in entrepreneurial intention have been explained by the (independent variable) entrepreneurial intention dimensions cooperatively and 44.7% was due to other unexplained factors in this study.

Table 4.13: The Analysis of Variance (ANOVA) result

ANOVA[a]

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|--|----------------|-----|-------------|---|------|
| 1 | Regression | 61.603 | 6 | 10.267 | 59.279 | .000[b] |
| | Residual | 49.882 | 288 | .173 | | |
| | Total | 111.485 | 294 | | | |

**Source:** researcher survey, computed in SPSS, 2021

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

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=111.485- 49.882= 61.603). 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=295-1=294), one less than the number of observations. The regression degree of freedom for the above table is six (6), which is the number of independent variables (Innovativeness, Self-Efficacy, Risk Taking, family background, access of finance, 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 288 degrees of freedom (=294-6) for this research paper.

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 4.13) shows a strong relationship between the dependent and independent variables of the study with F-statistic or F- ratio of 59.279 for the overall analysis, and is worth-mentioning that the F- value is highly significant(as p=.000).

*Table 4.14: Multiple Regression Coefficients Result*

Coefficients[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. | Lower Bound | Upper Bound |
| 1 | (Constant) | .859 | .148 | | 5.824 | .000 | .569 | 1.150 |
| | INN | .082 | .040 | .104 | 2.049 | .041 | .003 | .162 |
| | RT | .153 | .052 | .190 | 2.939 | .004 | .051 | .256 |
| | SE | .190 | .054 | .223 | 3.537 | .000 | .084 | .296 |
| | FB | .087 | .039 | .106 | 2.220 | .027 | .010 | .164 |
| | AF | .127 | .045 | .162 | 2.810 | .005 | .038 | .217 |
| | ED | .129 | .042 | .167 | 3.084 | .002 | .047 | .211 |

**Source:** researcher survey, computed in SPSS, 2021

a. Dependent Variable: Entrepreneurial intention
b. Predictors: (Constant), INN,RT,SE,FB,AF,ED

The Beta Coefficient (β) result shows the strength of the effect of each individual independent variable to the dependent variable (entrepreneurial intention) as shown in table.

The Mathematical Model of multiple regressions below can be used to determine the quantitative relationship between the variables:

$Y = α + β1X1 + β2X2 + β3X3 + β4X4 + β5X5 + β6X6 + Ɛ$

Where:

$α = .859$(constant)

$β1x1 = 0.082$ (Innovativeness)

$β2x2 = 0.153$(risk-taking)

$β3x3 = 0.190$(self-efficacy)

$β4x4 = 0.087$(family background)

$β5x5 = 0.127$ (access of finance)

$β6x6 = 0.129$ (entrepreneurship education)

$Ɛ$ = error term

Reliability coefficient = 95%

The model's prediction outline is as follows:

Entrepreneurial intention = 0.859+0.082+0.153+0.190+0.087+0.127+0.129

Based on the table 4.15 above, the Beta value (β) of innovativeness is .082 which means that as innovativeness increase by 1 percent, the entrepreneurial intention will increase by 8.2% keeping the other factors constant. Similarly, the Beta value (β) of risk taking is .153 which implies that as risk taking increase by 1 percent, the entrepreneurial intention will increase by 15.3% assuming the other variable is held constant. Also the beta value (β) of self-efficacy is .190 that means when self-efficacy increase by 1 percent students entrepreneurial intention will increase by 19 % in addition the beta value (β) of family background is .087 which indicates as level of family background increase by 1 percent employee performance will increase by 8.7%. Furthermore the beta value (β) of access of finance is .127 which indicates as level of access of finance increase by 1 percent entrepreneurial intention will increase by 12.7%. and Lastly, the Beta value (β) of entrepreneurship education is .12.9 which shows as increase by 1 percent, the entrepreneurial intention will increased by 12.9% keeping other factors constant.

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.

The discussion part of the analysis tried to answer both the general objective of the study and the research questions that the study wants to test. The general objective of the study is to investigate the determinate factors of students' entrepreneurial career intention. The study has three research questions. The first is to regression and empirically test the influence of internal factor (innovativeness, risk taking, self-efficacy) on students' entrepreneurial intention. The second is about the influence of external factor (family background, access of finance, entrepreneurship education) on students' entrepreneurial intention. Finally about compare entrepreneurial intention between business and technology of university students.

**H1:** *Internal factor has significant effect on entrepreneurial initiation of students*

Under this major hypothesis, there are three sub hypotheses (H1a, H1b and H1c) which state that innovativeness, risk taking and self-efficacy has a significant positive influence on students' entrepreneurial intention respectively.

The regression table above indicates, the innovativeness beta value 0.082 and P-value 0.041 ($< 0.05$) Hence, the regression model is useable for predicting the effect of innovativeness on students entrepreneurial intention. This implies that innovativeness is important in explain entrepreneurial intention. On the other hands, it has positive effect and statistically significant on predicting entrepreneurial intention. In the hypothesis of the study, *H1a: Innovativeness has a significant positive influence on entrepreneurial intention.* Based on the regression results of innovativeness p=0.041 (p<0.05) and since it has positive effect on students entrepreneurial intention, therefore the hypothesis test of (**H1a**) was accepted. The result of this study corroborates the findings of (Wathanakom et al.,2020); (Diehl, 2016) and (Kirby & Ibrahim, 2017).

The regression table above indicates, the risk taking beta value 0.153 and P-value 0.004 ($<$ 0.05) Hence, the regression model is useable for predicting the effect of risk taking on students entrepreneurial intention. This implies that risk taking is important in explain entrepreneurial intention. On the other hands risk taking has positive effect and statistically significant in the prediction of students entrepreneurial intention. As stated in the first chapter of the study the hypothesis study, *H1b: Risk taking has a significant positive influence on*

*entrepreneurial intention.* Based on the regression results of risk taking p=0.004 (p<0.05) and since it has positive effect on students entrepreneurial intention, therefore the hypothesis test of (**H1b**) was accepted. It is also consistent with the findings of (Rauch & Frese, 2007) and (Yurtkoru & Seray ,2014).

The regression table above indicates, the self-efficacy unstandardized coefficient 0.190 and P-value 0.000 ($< 0.05$) Hence, the regression model is useable for predicting the effect of self-efficacy on students entrepreneurial intention. This implies that self- efficacy is important in explain entrepreneurial intention. On the other hands self-efficacy has positive effect and statistically significant in the prediction of students entrepreneurial intention. As stated in the first chapter of the study the hypothesis study, *H1c: Entrepreneurial self-efficacy has a significant positive influence on Entrepreneurial intention.* Based on the regression results of self-efficacy p=0.000 (p<0.05) and since it has positive effect on students entrepreneurial intention, therefore the hypothesis test of (**H1c**) was accepted. The finding of the study is consistent with the results obtained by (Muhammad et al., 2017); ( Mwange, 2018). As a result, H1 is accepted because all of the three sub hypotheses are empirically confirmed.

## H2: *External factor has significant effect on entrepreneurial initiation of students*

This major hypothesis has three sub hypothesizes (H2a, H2b, and H2c), stating that family background, access of finance and entrepreneurship education has a significant positive influence on students entrepreneurial intention respectively.

The regression table above indicates, the family background beta value 0.087 and P-value 0.027 ($< 0.05$) Hence, the regression model is useable for predicting the effect of family background on students entrepreneurial intention. This implies that access of family background is important in explain entrepreneurial intention. On the other hands family background has positive effect and statistically significant in the prediction of students entrepreneurial intention. As stated in the hypothesis study, *H2a: Family background has a significant positive influence on entrepreneurial intention. Based on the regression result* of family background p=0.027 (p<0.05) and since it has positive effect on students entrepreneurial intention, therefore the hypothesis test of (**H2a**) was accepted. The result of this study corroborates the findings of (Georgescu & Herman, 2020); (Sieger et al., 2018).

The regression table above indicates, the access of finance unstandardized coefficient 0.127 and P-value 0.005(< 0.05) Hence, the regression model is useable for predicting the effect of access of finance on students entrepreneurial intention. This implies that access of finance is important in explain entrepreneurial intention. In other hands access of finance has statistically positive effect and statistically significant in the prediction of students entrepreneurial intention. As stated in chapter one of this studies the hypothesis, H2b: *Access to finance has a significant positive influence on Entrepreneurial intention.* Based on the regression results of access of finance p=0.005(p<0.05) and since it has positive effect on students entrepreneurial intention, therefore the hypothesis test of **(H2b)** was accept. The result consistent with the findings of (Ayalew (2018);( Neneh,2016) and (Thuo & Toma ,2016).

The regression table above indicates, the entrepreneurship education beta value 0.129 and P-value 0.002 (< 0.05) Hence, the regression model is useable for predicting the effect of entrepreneurship education on students entrepreneurial intention. This implies that entrepreneurship education is important in explain entrepreneurial intention. On the other hands entrepreneurship education has statistically positive effect and statistically significant in the prediction of students' entrepreneurial intention as stated in the hypothesis study, *H2c: Entrepreneurship education has a significant positive influence on entrepreneurial intention.* Based on the regression results of entrepreneurship education p=0.002(p<0.05) and since it has positive effect on students entrepreneurial intention, therefore the hypothesis test of **(H2c)** was accept. The finding of the study is consistent with the results obtained by (Pauceanu et al., 2018) ;(Paray & Kumar, (2020)**;** (Nabi et al,. 2017) and (Ayalew ,2018) .As a result, H2 is accepted because all of the three sub hypotheses are empirically.

Based on the finding support the two theory that are (Ajzen, 1991; Shapero and Sokol, 1982) which put forward that exposure to a new business directly influences on entrepreneurial intentions through social norm, perceived desirability and feasibility. The result of this study corroborates the findings of (Ayalew 2018) and (Rahman, 2020). This study indicates that both internal and external factor such as entrepreneurship education, self-confidence, access to finance/capitals for startup, business-owned family background and networking and professional contacts were found to be significant predicators on students' entrepreneurial intention.

## 4.6 Independent sample T-test analysis

The independent samples t-test compares the mean of two independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different.it is a parametric test. Researcher to achieve the objectives used independent sample T-test in comparing two populations using business and technology field of study students in Jimma University. Based on sample size from 295 respondents, 63(21.4%) of the respondent are Collage of Business and Economics (BECO) students and 232 (78.6%) of the respondents are Jimma Institute of Technology (JIT) graduate students.

*Table 4.15: Independent sample T-test for business and technology students N= (295)*

| | t-test for equality of mean | | | | | Levine's test for equality of variance | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | | t | | sig ($_{2tailed}$). | | | | | |
| | BECO | JIT | BECO | JIT | BECO | JIT | df | f | sig. | |
| INN | 3.58 | 3.89 | 3.130 | 2.870 | .002 | .004 | 112.328 | 4.064 | .041 | |
| RT | 3.63 | 3.82 | 3.893 | 3.696 | .000 | .000 | 138.168 | 3.228 | .000 | |
| SE | 3.47 | 3.70 | 3.035 | 2.943 | .003 | .001 | 116.797 | 1.106 | .002 | |
| FB | 3.63 | 3.67 | 3.195 | 3.043 | .000 | .000 | 102.339 | 1.527 | .032 | |
| AF | 3.79 | 3.84 | 2.967 | 2.731 | .000 | .000 | 131.341 | 6.424 | .012 | |
| ED | 3.67 | 3.79 | 3.403 | 3.621 | .000 | .002 | 119.042 | 7.667 | .008 | |
| EI | 3.75 | 3.96 | 2.848 | 2.632 | .000 | .000 | 114.184 | 3.89 | .021 | |

**Source:** researcher survey, computed in SPSS, 2021

**Note**: df = degree of freedom, BECO= Business and Economics Collage, JIT= Jimma Institute of Technology

a. Dependent Variable: Entrepreneurial intention

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

In table 4.16 above independent sample test get results of two tests –Levine's test for equality of variance and t-test for equality of means. The table contains two sets of analysis, the first one assuming equal variance in two groups and the second one assuming unequal variance. The Levine's test tells us which statistic to consider analyzing the equality of means.

The independent t-test analysis indicated the existence of significant mean score differences between business and technology students in innovativeness, risk taking, self-efficacy.

Business students had a mean score of 3.58 for innovativeness, whereas technology students had a mean of 3.89 and the mean differed significantly with a t-value of 3.130 at p = .002 and 2.870 at p=.004 respectively. Correspondingly, a statistically significant difference was found for risk taking, business students had a mean score of 3.63 versus 3.82 for technology students with t-score of 3.893 at p =.000 and 3.696 at p=.000 respectively.

Likewise, statistically significant difference was observed in self-efficacy. The mean score for self-efficacy for business and technology students were 3.47 and 3.70, with t-value equals 3.035, at p =.003 and 2.943 at p=.001 . Besides, statistically almost the same value of mean was observed for family background, business students had a mean of 3.63opposed to 3.67 for technology students with t-value 3.195 at p = .000 and 3.043 at p=.000. And access of finance (a business mean of 3.79 versus technology mean of 3.84), the differences were statistically significant at p=.000 with a t-value of 2.967 and at p=.000, 2.731, respectively. At p =.000 (t-value3.621), the mean score for technology students 3.67 was greater than the mean score for business students (3.79) at p=.002with t-value 3.403 for entrepreneurship education factor and the mean differed statistically. Though the mean scores for technology students were higher than the means score for business students' entrepreneurial intention (mean for technology student 3.96 versus business mean of 3.75).

### *H3:* **There is a significant difference exist on entrepreneurial intention between business and technology students in Jimma University.**

In independent sample t-test result p-values (sig.) of the entire entrepreneurial intention dimension), innovativeness, risk-taking, self-efficacy, family background, access of finance, and entrepreneurship education all are less than 0.05 (p<0.05).This indicates there is significant entrepreneurial intention difference between jimma university business and technology students.

Among the dimensions from willingness to take risk, risk-avoidance behavior is found to be less in business students, this shows technology students are more risk taker than business students in Jimma University. And also the other dimension of innovativeness is found to be more technology students; this indicates that business students are less innovative than technology students in Jimma University. Furthermore a dimension of self-efficacy is revealed that technology students more confidential, inspiration and skill to enter the challenging process of starting their own businesses than business students. This showed that technology students are academic preparation for their future career path as an entrepreneur

than business students in Jimma University. Based on the result of independent sample T-test showed that three dimensions of entrepreneurial intention such as innovativeness, risk taking and self-efficacy finding indicates that technology students better entrepreneurial intention than business students. The finding of the study is consistent with the results obtained by (Gilmartin et al., 2019).

# CHAPTER FIVE

# CONCLUSIONS AND RECOMMENDATIONS

This chapter contains conclusions and recommendations which are assumed to be useful to enhance Jimma University business and technology students' entrepreneurial intention.

## 5.1 Conclusions

The main objective of the study was to investigate determines of students entrepreneurial intention on graduate business and technology students in Jimma University. The study focused on certain factors namely internal factors (innovativeness, risk taking, self-efficacy) and external factors (family background, access of finance, entrepreneurship education) and its effect on entrepreneurial intention. The data was collected from graduate business and technology students. The data was collected from 295 respondents through questionnaires and analyzed used to both descriptive and inferential statistics.

The findings of demographic characteristics of the respondent descriptive analysis indicate most of the respondents are males and most respondents fell into the age groups of 18-23. In addition most of the respondents are Institute of Technology (JIT) graduate students based on sample size proportion and most respondents self –employment career choice as the future.

Based on the descriptive analysis of the variables, innovativeness, self-efficacy, and, risk taking, family background, access to finance, entrepreneurship education is above the midpoint of Likert scale. This implies that innovativeness, self-efficacy, risk taking, family background, access of finance and entrepreneurship education that supports entrepreneurial intention of graduate students for new business formation. The finding indicates the mean score of risk-taking result shows that the students are risk aversive. The mean scores of access to finance indicate there is a problem of financial accessibility for starting new business as it was perceived by respondents. And also the mean scores of family background indicate that family has high contribution on students' entrepreneurial intention.

The results of correlation analysis indicated that the independent variables: (risk taking, self-efficacy, access of finance and entrepreneurship education) has strong correlation with

entrepreneurial intention. And also innovativeness and family background has moderate correlation with entrepreneurial intention.

On the side of assumption tests; the examination of normality, linearity, hetroscedastcity and Multicollinearity tests, there was no problem found. Based on the finding of graphical test of normality result the data was normally distributed. In addition on the regression results 55.3% have been explained by the entrepreneurial intention dimensions and 44.7% was due to other unexplained factors in this study. The Analysis of Variance (ANOVA) results of the regression between Independent variables and entrepreneurial intention shows the probability value of 0.000 (p<0.05) indicates the independent variables was highly significant in predicting entrepreneurial intention.

All the entrepreneurial dimensions, innovativeness, risk taking, self-efficacy, family background, access of finance and entrepreneurship education have positive effect and statistically significant with the entrepreneurial intention. Therefor based on the regression result of the study of the alternative hypothesis, H1a, H1b, H1c, H2a, H2b and H2c were accepted. As a result, Ha1 and Ha2 are accepted because all of the six sub hypotheses are empirically confirmed.

Finally based on the results of the independent sample T- test analysis, because of the highest p-value of Levine's test for equality of variance (P<0.05), the researcher concludes that there were statistically significant entrepreneurial intention difference between business and technology students in Jimma University. Therefor based on independent sample T-test result of the study of the alternative hypothesis, H3 (JIT≠BECO) was accepted.

## 5.2 Recommendations

The study was conducted to investigate determinates of students entrepreneurial career intention in Jimma university business and technology field of study, Ethiopia. From the conclusion made based on the major findings of this study the following recommendations are forwarded.

➢ Innovativeness has significant effect on students' entrepreneurial intention. Therefore, Jimma University may to advise to promote innovativeness because of innovativeness is one of the critical success qualities needed to become an entrepreneur in the future and more concentration for practically work. In addition to develop idea generation

workshops, through workgroups and brainstorming for the development of innovative projects.

- ➢ Risk taking has significant effect on students' entrepreneurial intention. So Jimma University to  develop mind-set of taking risk students  in a calculative thinking and converting uncertain attempts into as to get an golden opportunity for starting new business activity.

- ➢ Self-efficacy has significant effect on entrepreneurial intention. Therefore, Jimma University shall encourage graduate business and technology students to become entrepreneur by providing different motivation, work place, training and awareness after graduate. In addition Jimma University to provide students with a wide variety of opportunities such as business plan writing, running a small business and working with an entrepreneur to develop their skills and  self- confidence in different business activity and roles as an entrepreneur.

- ➢ Based on the finding showed that family background has an impact on entrepreneur intention. This indicates family become an obstacle if they don't know the use of entrepreneurship and only think employment for salary in an organization is secure and respectable because studies finding, family background has a significant effect on students' entrepreneurial intention. Therefore, it is recommended Jimma University work on teaching the society as a whole using different ways such as the TV programs centered on entrepreneurship and its benefits to the economy.

- ➢ This study shows that access to finance has significant effect on entrepreneurial intention. Therefore, government shall create conducive environment for entrepreneurs to easily get finance by convincing the financial intuitions to minimize their interest rate. Furthermore, the researcher recommended for Jimma University academically assessed recognizing for students' business plan competitions, searching for financing from collaborating bodies.

- ➢ Entrepreneurship education has a significant effect on students' entrepreneurial intention that increases technique know-how, skills and confidence of the students to become entrepreneurial career. Therefore, it is recommended that Jimma University for entrepreneurship course be practical in addition to the theory is more important to improve entrepreneurial skills of students. In addition entrepreneurship lecturers that run their own businesses can use their practical experiences to motivate and inspire students to become entrepreneurial.

- There is a difference in entrepreneurial intention Jimma University between business and technology students. Business students have lower entrepreneurial intention than technology students based on the dimensions of innovativeness, self-efficacy and risk taking. Therefore, it recommends that the Jimma University business and economics collage are more focused for practical activity than theory and also to improve innovativeness, risk taking and self-confidence of business students.
- Jimma University management and educators should add more value to their graduates by combine some skill training at the side of the elements in a that enhance the development innovativeness, self-efficacy and risk-taking, practical entrepreneurship education since these are beneficial to both a self-employment and a successful career path.
- The researcher recommends that academicians should develop and training to motivate the students to develop their intentions to action because of entrepreneurial activities is one of the biggest ways to reduce unemployment.

## 5.3. Recommendations for further study

This research focused only on final year undergraduate students of business and technology in Jimma University. Researcher recommend to include sample of all colleges in the university and other universities to makes better generalization and researcher also recommend comparative study between public and private university, extension students and regular students, freshman students and final year students. For interested researchers, recommend to including other variables that many determinates of entrepreneurial intention of university student.

Finally the researcher recommended that future research is better to choose a longitudinal research design to examine the cause and effect relationship between different entrepreneurial intention dimensions and students entrepreneurial intention.

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# APPENDIXI

**Dear respondents,**

My name is Tewabech Kassa, Final year Masters of Business Administration (MBA) student at Department of Management, Faculty of Business and Economics –Jimma University. This survey is designed to identify the "**Determinants of Student's Entrepreneurial Career Intentions a study at Jimma University Business and Technology students**".

This questionnaire is designed to obtain information about your perceptions, ideas, know-hows and individual information regarding the entrepreneurial intention. The success of this study depends on your genuine and reliable response to each question. Therefore, I assure you that the response to the questionnaire will be kept confidential. Hence, I would like to thank in advance all who take their valuable time to fill in this questionnaire. If you have any doubt to fill this questionnaire call 0929431568 Tewabech Kassa.

**Part I: General 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.

Instruction: You are kindly requested to put a tick mark (√) on the space provided and give short description where necessary

1. Sex:   1. Male □   2. Female □

2. Age :   18-23 □      24-29 □      30-35 □      above 35 □

3. Respondent's College

      1. College of business and Economics □

      2. Jimma Institution of technology   □

4. Indicate your career choice right after study?

   Employee □

   Self-employed □

   No plans □

**Part II Please indicate the most appropriate response with the Likert scale given below from question 5=Strongly Agree. 4= Agree.   3= Neutral. 2=Disagree. 1=Strongly Disagree.**

1. **Entrepreneurial Initiation**

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I have strong intention to start my own business after completing my study. | | | | | |
| 2. I am mentally mature to start my own business. | | | | | |
| 3. I have very seriously thought in starting a firm. | | | | | |
| 4. I will make every effort to start my own business. | | | | | |
| 5. I have got the firm intention to start a firm someday. | | | | | |
| 6. I'm ready to make anything to be an entrepreneur. | | | | | |
| 7. I prefer to be an entrepreneur rather than to be an employee in a company. | | | | | |
| 8.  I am determined to create a business venture in the future. | | | | | |

2. **Innovativeness**

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I like to experiment with various ways of doing the same thing. | | | | | |
| 2. I like the job which demands innovativeness rather than skill and practice. | | | | | |
| 3. I have a capacity to create new ideas. | | | | | |
| 4.  I prefer to implement new ideas than existing ones. | | | | | |
| 5. I often surprise people with my novel ideas. | | | | | |
| 6. I hope to develop new techniques in my field of work. | | | | | |

### 3. Risk Taking

| Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I always consider security as an essential element in every phase of my life. | | | | | |
| 2. I will do very well in difficult tasks relating to my job. | | | | | |
| 3. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to do. | | | | | |
| 4. Entrepreneurial activity is considered too risky to be worthwhile. | | | | | |
| 5. The risks involved in setting up a business are too high. | | | | | |
| 6. I would not be uncertain to put my money into a new business that could fail a venture. | | | | | |

### 4. Self-efficacy

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I am confident that I can perform effectively on many different tasks. | | | | | |
| 2. I feel confident that I can succeed in any business activities. | | | | | |
| 3. Even when things are tough, I can perform quite well. | | | | | |
| 4. When I am doing something difficult, I feel confident that I will succeed. | | | | | |
| 5. I am confident of my skills and abilities to start a business. | | | | | |
| 6. I am delighted to face the challenges of creating a new business. | | | | | |

**5. Family Background**

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I believe that my closest family members think that I should pursue a career as an entrepreneur. | | | | | |
| 2. My immediate family would approve of my decision to start a business. | | | | | |
| 3. I think family background is a good complement to my professional background that can help me to start a business. | | | | | |
| 4. I believe that family's background has a contribution to a person's entrepreneurial intentions. | | | | | |

**6. Access to Finance**

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. Financial institutions are ready to give required finance to start business | | | | | |
| 2. If I were to start my own business, I know how to use financial information to make business decisions. | | | | | |
| 3. It is hard to start one's own business due to the availability of financial resources. | | | | | |
| 4. If I were to start my own business, I know that banks and financial institutions will charge high interest rates to my new business. | | | | | |

**7. Entrepreneurship Education**

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I think the entrepreneurship course would give me more ideas and opportunities to start a business in the future. | | | | | |
| 2. My school education gave me skills and know-how that enable me to run a business. | | | | | |
| 3. Knowledge about the entrepreneurial environment. | | | | | |
| 4. Greater recognition of the entrepreneur's figure. | | | | | |
| 5. My school education helped me to better understand the role of entrepreneurs in society. | | | | | |
| 6. My school education made me interested to become an entrepreneur. | | | | | |