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**IDENTIFICATION OF FACTORS INFLUENCING ENTREPRENEURIAL  
INTENTIONS OF ACADEMIC INSTITUTIONS GRADUATE**

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**ABSTRACT**

The research has been targeted to identification of factors influencing entrepreneurial intentions of academic institutions graduates. The subject of entrepreneurship is necessary to eliminate the unemployment rate. There are many factors that are impacting the enterprise development such as market opportunities and the need for achievement, the university's internal environment of education, self-efficiency, and family background. The research methodology is based on the ISM Micmac Model to make the decision that which factors are highly affecting the entrepreneurial intentions of academic graduates. There are a total of 8 steps of the model, and each indicates how variables can be derived and their relationship. A map is developed based on the levels of the transitivity. The links are removed, and then modified to develop the ISM model. It has been observed that those who are having specific entrepreneurial skills are more innovative and ambitious to get their path and development in a specific direction. Those who are not having the technical and non-technical skills based on entrepreneurship are not determined to get those things that they want. The government should provide the financial support as to increase the wiliness among the students to start their business. The

introduction of technology and awareness seminars must be conducted to highlight the importance of starting one's own business.

## **INTRODUCTION**

Entrepreneurship is considered as one of the most important choices of career after graduation for the students of business management and other fields where the option of starting a new business based on the research is available. The whole idea of entrepreneurship is based on starting new projects after research and try to minimize the risks linked with the business as much as possible. The trend of entrepreneurship is equally important for individuals as well as the states as it has become one of the major reasons to decrease the unemployment in the state (Valliere and Peterson, 2009). In developed countries, students are encouraged to study the subjects related to entrepreneurship and choose it as a career rather than to go into the market in search of employment after graduation.

There are many factors linked with entrepreneurship that create a suitable environment for the students to choose it as a career, like the support of the state, trends of society, facilities to get investments on easier conditions, and proper guidance from the educational institutions (Herdjiono et al., 2017). Countries where students choose this career and become successful are provided with all these facilities to help and encourage students to go ahead and make their contribution to the state. This trend of choosing entrepreneurship as a career is still not considered a good choice in developing countries and students usually go to the market after graduation for a job. The developing nations are focused on the factors that are hurdles in the way of the career of their students in this field and prepare to take steps to overcome that hurdle. Students are guided to this career and states are trying to provide facilities for helping and encouraging them to go ahead in this field. The basic problem is the lack of awareness, facilities, and proper guidance from society and educational institutions.

Entrepreneurship activities are directed to minimize the unemployment rate in the state or country, but there are some factors that are hurdles to get the accomplishment of the vision of starting an enterprise. The international perspective of entrepreneurship activities is being impacted, but developing countries like Pakistan are more vulnerable because of the least market opportunities (Kadir&Merican, 2017). One of the intentions of the entrepreneurs to get market opportunities while incorporating the innovation, risk reduction parameters, and logs of richness (Chen et al., 2015). The attitude that can be extracted from the physical expression is one of the factors that can impact the young graduates to start an enterprise because the trend has been set to declare the labor market as a success factor (Karimi et al., 2016). Entrepreneurship education is one of the factors that has developed the social and economic activities of the developed countries, but it is lost in most of developing countries (Kabir, AhasanulHaque, Abdullah Sarwar, 2017). Once the issues of entrepreneurial education are resolved, it would develop a desire among the students to get entrepreneurial education and to start their business (Aladejebi, 2018).

The study has been focused on highlighting the factor that is impacting the intentions of the graduates from the university to start their enterprises based on the region of Pakistan. The choice of career after graduation is the most important step for a student in his professional life. All over the world, entrepreneurship is considered an attractive choice, and students are encouraged to make their careers in it. Like other developing countries that are struggling with their economy and face unemployment, Pakistan also has the trend where students mostly go in the market seeking employment after graduation rather than starting a new business (Desai, 2011). This research's main focus is to find the basic issues that discourage the Pakistani graduates from becoming an entrepreneur and analyzing the major problems that are the reason to create this whole scenario and lead to unemployment in the country.

The aim of the study is focused on the multiple factors that are increasing the troubles to introduce entrepreneurial education in the educational organization in the case of Pakistan. There is a need to introduce the parameters in the educational system that can promote entrepreneurial education to increase development opportunities and the employment rate. Here is the following objective based on which the research work has been conducted.

- To identify the key factors that are impacting the introduction of entrepreneurial education in the education system.
- To determine the intensity of the factors as to which extent factor is impacting the entrepreneurial activities as compared to other factors.
- To analyze the opportunities and the strategies that can help the educational system to intervene in the entrepreneurial activities in education.
- To recommend the plan and orientation of the educational system based on the multiple case studies of the educational system of developed nations.

Entrepreneurship is one of the creative activities of value extraction. The term can be defined as the ability or the skills to run a business while minimizing the factor of risk to increase the profit of an enterprise. The unemployment factor can also be decreased once the youth has developed the culture of their enterprise. Kadir, and Merican (2017) discussed that entrepreneurial activities are supported by the government because it is one of the ways to reduce the unemployment rate in the country, and youth must be directed towards the enterprise development. The research of S M Kabir, AhasanulHaque, Abdullah Sarwar (2017) has elaborated that the government and the current state of Bangladesh are focused on encouraging entrepreneurship education among the students at different levels. It has been researching on how entrepreneurial education can impact the factor of entrepreneurial activities (Shamsudin et al., 2018). The research of Hattab (2014) indicated that there is a relation of perceived desirability that exists between entrepreneurial education and entrepreneurial activities to start a business, but there is no relation of feasibility and effectiveness between entrepreneurial education and entrepreneurial activities to start a business. There are some issues that are concerned with starting a business and how it is impacted by higher education activities (Jones et al., 2017). The young graduates are motivated towards the labor market rather than entrepreneurship, and it is concerned as a factor of success (Herman & Stefanescu, 2017). There are certain factors that have become the reasons to impact the entrepreneurial activities among the young graduates of the university.

The study has been focused on indicating which factors can impact the entrepreneurial activities in Pakistan because it has been observed that there are very few young graduates who are having the vision to start their own enterprise, and most of them are directed to get the market opportunities. The scope of the research work can be implemented in the developing countries as all of these are facing the same issues as it has been observed in the Pakistan. The same factors and the approaches can be analyzed in their educational system. The study covers all the factors and the issues that has been faced by student to pursue their education in entrepreneurial activities, either financial issues or the institutional issues. The development of the research work is helpful for the educational system and the public and private institutes that are failing to implement the strategies of the educational development. The defined strategies and the comprehensive literature review are a detailed helping opportunity to improve the employment opportunities based on the studies of entrepreneurship. The students of public and private institutes can also avail themselves the chance to identify the factors as well as the strategies to overcome the impact of these factors on the educational system.

The research study methodology is based on the ISM MICMAC methodology as it can be helpful for the factors that are influencing entrepreneurial activities. ISM is one of the effective models that is based on the set of disparate and related elements of the research in a very comprehensive way and systematic model (Jayant and Azhar, 2014). Here are the following steps of the model that are added in the current research study.

- Step 1: The most efficient and effective variable of the "factors influencing entrepreneurial intentions of Academic institutions graduates" are selected and listed as market opportunities, attitudes, needs of achievement, the university's internal environment of education, self-efficiency, and family background (Jayant and Azhar, 2014).
- Step 2: The contextual relation is developed between the selected variable as the educational perspective of the entrepreneurial study is the dependent variable while market opportunities, attitudes, needs of achievement, the university's internal environment of education, self-efficiency, and family background are independent factors (Bhosal and KantR, 2016).

- Step 3: The step is based on the pairwise relationships between the variable through the formulation of a structural self-interaction matrix (Bhosal and KantR, 2016).
- Step 4: The SSIM would help to devise the reachability matrix to check the transitivity of the matrix. The equation  $M = D + IM^* = Mk = Mk+1, k > 1$  analyzes the relationship between different variables as the transitivity technique determines that either A is related to B or B is related to C etc. (ZhengG et al., 2012).
- Step 5: The reachability matrix is divided into different levels to determine that either it meets the criteria or not (ZhengG et al., 2012).
- Step 6: The directed graph is drawn based on the different levels of the matrix (ZhengG et al., 2012).
- Step 7: The links are removed, and the directed graph is converted into an interpretive structural model (ZhengG et al., 2012).
- Step 8: If there is any inconsistency, then it is removed or modified, and the ISM model is developed (ZhengG et al., 2012).

The research paper is based on the title “Identification of factors influencing entrepreneurial intentions of Academic institutions graduates” and the subject of entrepreneurship is necessary to eliminate the unemployment rate. There are many factors that are impacting enterprise development as market opportunities, attitudes, the need for achievement, the university's internal environment of education, self-efficiency, and family background. The research methodology is based on the ISM Micmac Model to make the decision that which factors are affecting the entrepreneurial intentions of Academic institutions graduates. There are a total of 8 steps of the model, and each indicates how variables can be derived and their relationship. The directed graph is developed based on the levels of the transitivity. The links are removed, and the directed graph is converted into an interpretive structural model and then modified to develop the ISM model. It is followed by the following sequence as:

- Introduction of the research topic based on the research problem, objective, importance, and scope of study and it is the most crucial and important chapter to highlight the purpose and the objective of the research on the specific topic.
- Literature Review is the second and most crucial chapter that is based on the past studies on the respective topic to highlight that what factors and parameters are becoming problems and issues in the developing countries to implement the entrepreneurial activities.
- The third chapter is followed by the Methodology of the chapter that indicates the process to conduct the research study.
- The fourth and last chapter is based on the conclusion and recommendation of the research chapter and providing the way forward to implement the research on the ground educational system.

## LITERATURE SURVEY

Entrepreneurship is one of the creative activities of value extraction. The term can be defined as the ability or the skills to run a business while minimizing the factor of risk to increase the profit of an enterprise. The unemployment factor can also be decreased once the youth has developed the culture of their enterprise. Kadir, and Merican (2017) discussed that entrepreneurial activities are supported by the government because it is one of the ways to reduce the unemployment rate in the country, and youth must be directed towards the enterprise development (Hattab, 2014). There are multiple factors that are impacting the entrepreneurial intentions, and lack of institutional culture and education based on entrepreneurship is one of the biggest reasons.

### Need of Achievement

The need for achievement is based on the personality traits and the orientation of entrepreneurial activities (S M Kabir, Ahasanul, Abdullah2017). It has been observed that the students who are more likely to engage in the activities to get the achievement are having higher personality traits rather than those who are having the low intention of achievement. These individuals require the skills, inputs, efforts, and the degree as well (Shamsudin et al., 2018). The person or student having the entrepreneurial intentions are having a higher degree of their entrepreneurial traits and the activities

rather than focusing on other career opportunities as seeking for the job. These people are focused on getting the entrepreneurial achievement rather than seeking job opportunities and then excelling in the specific field.

### **Personality Traits and Entrepreneurship**

Entrepreneurship has become the major concern of policymakers and scholars as it can contribute to the social and economic factors of the country as well as it can help for the social transformation of the society. The entrepreneurial factors and the entrepreneurial environment have a major contribution to the orientation and mindset of the entrepreneurship. It has been researched those entrepreneurial skills and environment have a direct and indirect impact on entrepreneurial orientation and intentions (Fatoki&Olufunso, 2010). There are very few people who are guided well about their skills and abilities to get the right use of their abilities, and some of the people could never be able to recognize that either they are possessing the entrepreneurial skills and abilities.

### **Individual Skills and Efforts**

The research of Ibrahim and Mas'ud, 2016 has indicated that entrepreneurial skills, orientation, and the entrepreneurial environment have a positive impact on entrepreneurial intention. The authors have also discovered one of the important factors as the entrepreneurial orientation direct a path for the people to have specific skills, abilities, and entrepreneurial intentions. The entrepreneurial intentions have a direct link to have the learning aptitude of skills and entrepreneurial abilities. The research of Ibrahim &Mas'ud, 2016 has also analyzed that the government and the institutes should contribute to help the students and people as they can enrich their entrepreneurial skills as well as enlighten their entrepreneurial orientation in a conducive entrepreneurial environment. The same elements have been observed in Nigeria, and it has been observed that these factors have highlighted the perspective of entrepreneurial intention(Konakll, 2015).

### **Involved Risk**

The inclusion of risk is also one of the factors that are affecting the entrepreneurial intentions, and it would never let people learn the entrepreneurial skills, efforts, and abilities. The research of Barbosa et al., 2007 highlighted the factor of how cognitive style and involved risk are impacting the student's desire and intention of entrepreneurship. It has been highlighted that the risk factor is having a direct impact on the people because there is no proper education and degrees that have helped the people to find the way through the risk mitigation measurement (Urban &Kujinga, 2017). The research has also highlighted other perspective of risk analysis as the students who have the knowledge, mitigation plane and higher preferences to address the risk involved in an idea has the higher intentions of entrepreneurship. Those people who don't have any risk preference and risk mitigation plan have the low intentions of entrepreneurship as they possess a lower level of entrepreneurial skills, self-efficacy. They also have a low relation with economic management, investment, and a lower capacity of tolerating ambiguity(Turker&SonmezSelcuk, 2009).

### **Business Visionary**

Business inventory is one of the important factors that can influence the entrepreneurial intentions because then higher intentions of getting achievement let the people set their goals and devise new ideas of development (Kuckertz& Wagner, 2010). There is also a specific requirement of a business visionary as the imagination in a specific venture should be higher to get the achievement in a specific market. It has been observed that the people who are having a higher vision or perspective of entrepreneurial intentions, then he is the only one who is prepared for all ups and downs of his way of achievement (Waddock&Steckler, 2014). The person is prepared to find and open new ways of achievement while minimizing the risks. The perspective of higher visionary and imagination can path the way to endeavor. It is one of the positive factors of entrepreneurial intentions as it can help to find the new emerging opportunity based on the market value (Chipeta, 2019).

### **Entrepreneurial Education**

It has been observed that entrepreneurial education is one of the emerging fields of socioeconomic sciences that has got an interest in past few decades from the perspective of academic and research sciences. The influence of education on entrepreneurial intentions has got more demand in the research and academics but there is a need for the theoretical and structural development of the educational programs to get more success (S M Kabir, Ahasanul, Abdullah 2017). The profession got fame, and the government has also highlighted it, but there is a need to introduce a proper version of it. If the educational institutes are putting the focus on the possible fact of the courses that can path the ways of entrepreneurial intentions, then it can identify the opportunities for the career development of people; otherwise, it is useless. Educational institutes should perceive new ways of development, introducing the innovative and creative ideas that can help the people to decide a specific direction of career (Hattab, 2014). Here are the following factors that have a direct and indirect impact on entrepreneurial intentions based on the fact of entrepreneurial intentions.

### **Entrepreneurial Program**

It is one of the factors that has impacted the entrepreneurial intentions because of the increase in interest. There are multiple government and private institutes that are providing short and degree programs in entrepreneurship that has increased the awareness among people to make a career choice or find the opportunities for development. But there is a lack of incorporation of those factors that can help the people to find their way in a specific direction. The programs should be focused on the factors that can help people to develop an entrepreneurial intention. The course outline has a great impact on the people as the diverse choice can help them to find a way of their interest (S M Kabir, Ahasanul, Abdullah 2017).

### **Entrepreneurial Skills**

The educational programs shouldn't only provide the opportunities to study but also develop a factor that can increase the technical and non-technical, entrepreneurial skills of people. If the educational programs are impacting the people in a way to increase the entrepreneurial intentions, skills, and innovative ideas, then it is a useless factor (Hsu & Wang, 2018). It has been observed that those who are having specific entrepreneurial skills are more innovative and ambitious to get their path and development in a specific direction. Those who are not having the technical and non-technical skills based on entrepreneurship are not determined to get those things that they want (Kabir, Ahasanul, Abdullah 2017).

### **Creativity and Innovation**

It is one of the important and crucial factors of entrepreneurial educations that has increased the opportunities for development (Kabir, Ahasanul, Abdullah 2017). The educational programs should be innovative and creative that broaden the perspective of the people to find their way in different directions. It can help to identify the parameters of choice. It is a common psychological fact that creativity is the necessary component of entrepreneurship (Laguía et al., 2019). There is a direct link between creativity, innovation, and entrepreneurial intentions. It has been observed that entrepreneurs are innovative and creative. The ability or skills of innovation and creativity help the people to devise new ideas and development of business. They are more determined to find their way to success (Laguía et al., 2019).

### **Career Choice**

There are multiple types of research that have proved the direct relation between entrepreneurial intentions and career choice. The analysis of the studies has revealed that those students who studied the entrepreneurial educational programs are more determined to be an entrepreneur rather than those who have not studied the entrepreneurial educational programs. The educational programs have the factors in cultivating determination among the students to be an entrepreneur. The courses and the innovative studies help the student to decide their career choice. The studies have also revealed that

entrepreneurial education is powerfully interrelated to entrepreneurial intention as the graduated students have the intention to start their own business rather than those who haven't studied the courses or programs (Kabir, Ahasanul, Abdullah2017).

### **Market Opportunity**

The factors that are considered as hurdles in the way of Pakistani students to start their enterprise after graduation can be predicted efficiently and market opportunities is a factor that is very prominent in all of the hurdles faced by graduates. In developing countries like Pakistan, the market trend has been set in a way that students have to pick the option of employment rather than to take a risk and start their own business which is a basic hurdle for them in this field. This is not a single factor but depends on the many other things included in it which will be discussed here.

### **Entrepreneurial Intention**

The mind of an entrepreneur thinks in a specific way and a person who wants to become an entrepreneur has to build his mind in that specific way. Entrepreneurial intention is the setup of mind that encourages the person to think about starting a new business, having an interest in the trend of the market according to their field, and taking some risks by investing (Esfandiar et al., 2019). Studies show that the entrepreneurship students have the intentions to become an entrepreneur in developed countries like the United States but in developing countries like Pakistan, the trend is opposite and maximum students seek employment in the market rather than starting their enterprise because they see less risk and more benefits in that thing. Several factors are linked with entrepreneurial intentions and have a strong effect to make these intentions but usually, the personal traits of students like self-confidence, abilities to take a risk and follow their interest by going out of the trend are considered as the major factors that have an impact on entrepreneurial intentions.

### **Entrepreneurial Actions**

Another important factor that affects the willingness of a person to start a new enterprise is entrepreneurial action which is the attitude or behavior of a person to make a decision when he finds an opportunity for profit that includes risk (Townsend et al., 2018). Entrepreneurship is something about taking calculated risks and the decision making to avail an opportunity of profit that includes some risk is very important for a person who wants to be successful in the field of entrepreneurship. Different phases are included in this factor that decides the action of an entrepreneur that is to identify and evaluate the opportunity that whether it is suitable to avail it by taking a calculated risk or not (Hunt and Lerner, 2018). The making of a business plan and the evaluation of resources required for availing the opportunity are the other important phases that play a decisive role to take an entrepreneurial action about the possible opportunities of making a profit.

### **Motivation Factor**

A person gets motivation from a person which is similar to him and works in a similar situation as him. One can give examples of successful entrepreneurs or persons from any part of the world but it cannot be effective or a factor of motivation for students until the person is local or has worked in a similar situation like them (Yimamu, 2018). The trend in developed countries is to start a new enterprise after graduation and a small number of students choose employment after the study of entrepreneurship as they see the successful entrepreneurs between them and suitable conditions for starting an enterprise are available for them. In developing countries like Pakistan, success is considered to get employment after graduation, and usually, the students see successful people according to them doing so. The successful entrepreneurs in these kinds of societies have worked with difficulty and they make decisions out of the trend of society.

### **Competitive Market**

A competitive market is one in which sellers compete with each other to provide the best quality of products at suitable rates to the customers. A market with healthy competition is very important for

entrepreneurship as it encourages the innovation and new plans of the business, also these types of competitions help the entrepreneurs to identify the needs of customers and modify their plans and products according to them (Setiono, 2019). Countries with a trend to start a new enterprise after graduation have these kinds of markets and competitions that help the students to get motivated and start their own business. But in countries like Pakistan, the market trend is all about getting more profit and quality of products is a secondary thing, also the success is considered in getting an employment and graduates avoid taking risks to start an enterprise.

### **Innovation and Unique Idea**

Innovation is a vital element of entrepreneurship as it helps to get the ideas of the market differently, manufacture products using innovative ideas from research and development, and provide quality products to the customers to build the network of customers in the market. One can say that entrepreneurship is all about innovation as it consists of unique business ideas of persons who start their business after graduation based on their research and development (Lee, Kim, and Sung, 2019). This factor of innovative and unique ideas also depends on the trends and situation of the society. Graduates from developed countries work on their unique ideas of new business based on their research and implement these ideas according to their resources, but in countries like Pakistan, students usually seek to get jobs in different companies after graduation so these ideas are not common in these types of states which is a big hurdle in the way of entrepreneurship.

### **Family Background**

Another important factor that has an impact on the decision of a graduate student to become an entrepreneur or choose any other career is his family background and the society in which his family is living. In every society, the standard of success is different, and mind of people is set accordingly, and if anyone wants to choose a career other than the trend of society, he faces much resilience from family and society (Georgescu and Herman, 2020). To choose the career of an entrepreneur is not difficult in developed countries as it is almost a normal thing there, but in developing countries like Pakistan where getting employment after graduation is considered a success, it is much difficult for students to start a new enterprise as many risks are related with a new business based on innovative research. More aspects of family background are discussed below.

### **The positive and negative attitude of business**

The attitude of a person and his family towards the business plays a decisive role in the selection of his career. Families having a background in business and entrepreneurship usually encourage their children to choose their careers in business-related fields and do not want them to get a job. On the other hand, people in developing countries are mostly employees and work for others so they want their children to get a job too and not to become an entrepreneur as their investment will be at risk in this way (Liguori et al., 2019). This type of attitude is present all over Pakistan even in educational institutes that discourage the students to become an entrepreneur. Attitude is also considered a vital element in entrepreneurship as it helps to make decisions in difficult situations of business.

### **Internal business environment**

A new business or organization usually face two types of threats that are external threats and internal problems related to them. The internal environment of a business is very important as the success or failure depends on it. For an entrepreneur, not only the relationship with the workers is important, but he needs support from his family to get peace of mind for working efficiently. This environment is all about the resources for starting a new business, support from workers and family, and goodwill from them to take initiatives and risks based on the ideas of new research and development. If the internal business environment becomes pleasant, everything goes according to the plans made by an entrepreneur. The deficiency of this type of environment in Pakistan is one of the reasons that restrain the students to choose the career of an entrepreneur.

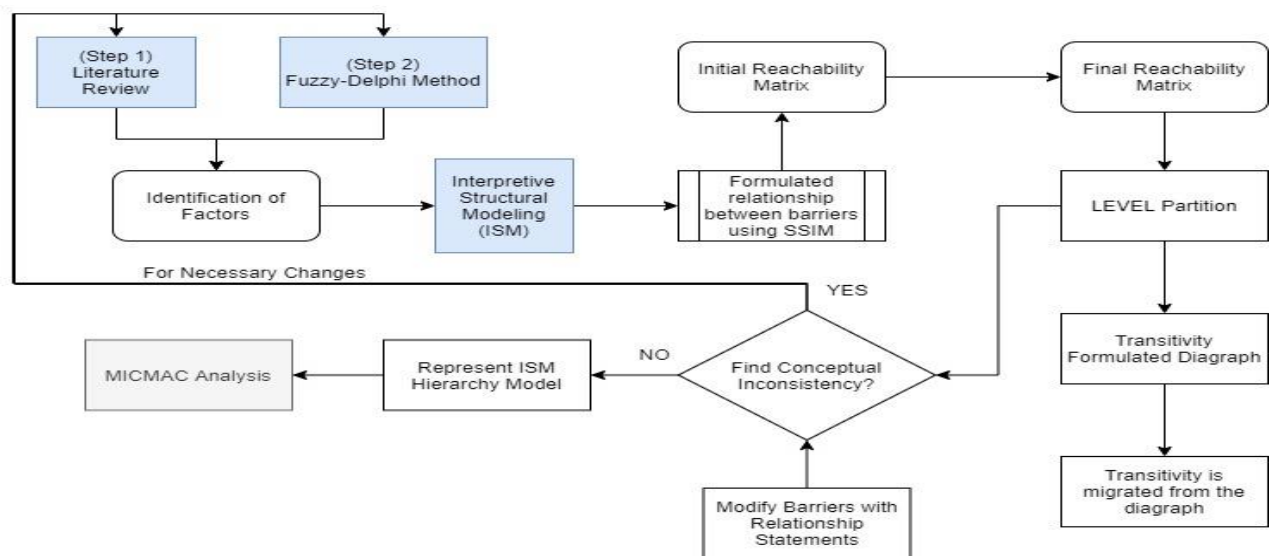


**Financial Resources**

The start of a new enterprise requires intention, ideas and research, internal and external motivation, and financial resources which is one of the major things required for it. Financial resources are directly related to the background of families. Persons having families with a background of business get these resources easily and others who have families with the trend of employment face very difficulties in getting sufficient resources for the start of an enterprise (Gujrati, Tyagi and Lawan, 2019). In Pakistan, most people are employees in some government institutions or private firms, and it is very difficult for them to invest in an innovative idea for their children that is out of the trend of society. This lack of resources discourages students to start their enterprise and they choose the option of employment.

**METHODOLOGY**

This research work is made to give entrepreneurial intention to the academic institutions' graduate (EIAG). This section is an effort to clarify the development process of the theoretical model. The objective of this methodology is “Identification of factors influencing entrepreneurial intentions (FIEI) of Academic institutions graduates”. This research work employs to make a vast contribution in the literature reviews to enhance the concept of self-employment in the academic graduates so that they can take a full part in the practical work of life and withhold their position in the society. To work on that study two main things are very important in this regards that we have to find out the major problems and issues firstly that are faced by the graduates and secondly, we have to analyze those problems or factors to diminish them. So, there are two main steps are involved in this research work i.e., Fuzzy Delphi Method (FDM) and Interpretive Structural Modeling (ISM) MICMAC Analysis. The process of the whole methodology is explained below



**Figure 1:** Methodology Adopted

As it can be seen on the flowchart that all we need is a detailed literature review that has been studied to find the key barriers to the introduction of factors influencing entrepreneurial intentions. These barriers were shortlisted through the FDM, after which these were examined through the ISM and MICMAC analysis, and then the final results are made.

**Step 1: Identification of Barriers through Extensive Literature Review**

To enlighten the approaches to find out the factors influencing entrepreneurial intentions in academic graduates' various articles from extensive literature were studied. a detailed literature review has been performed by consulting a wide array of research articles and studies conducted on this particular discipline. These articles, studies, and literature reviews were explored via various different databases. Examples of these databases include ScienceDirect, Springer, Emerald Insight, Taylor and Francis, Google Scholar, JSTOR, and PubMed (Lin et al. 2019). Moreover, the keywords that were used to find

the related articles included “Barriers” “Personality Traits and Entrepreneurship” and “Individual Skill and Effort” etc.

After a thorough literature search, we selected qualifying factors from various papers and all these papers are listed in the previous section of the literature reviews section. In the initial stages of the study, more than 200 articles were identified, and using the evaluation criteria, and relevant more than 100 articles were shortlisted from the 55 journals. After examining the abstract and contents of these articles, many articles and journals were removed from the list of eligible studies to be examined, due to their irrelevancy. Some popular journals that were consulted for the study include the Sustainable construction through energy management practices in developing economies (32 Pages), Promoting sustainable construction through energy-efficient technologies (24 Pages), Promoting sustainability through corporate social responsibility implementation in the manufacturing industries (20 Pages), Impediments to Social Sustainability Adoption in the Supply Chain (22 Pages), Evaluating the Indian retail service quality enablers (29 Pages), analyzing consumer online group buying motivation (14 Pages), and Modelling the psychological and design attributes of innovative products (28 Pages).

Note: In above paragraph, the titles of different papers are written only.

### **Step2: Screening of Barrier through the Fuzzy Delphi method (FDM)**

Many researchers have used the Delphi method in different fields of studies, such as social sciences, construction, management, management sciences, and medical sciences research. One of the main advantages of this method is that it makes use of experts’ opinion that is tailored according to the discipline that is under question (Liguori et al., 2019). So, after consensus with the experts related to the different fields of practical work like academic, industrial, etc. group of experts is made in which 17 experts are associated with academic work and 17 experts are linked with the industrial profession. Hence with the specific opinion of 34 experts, the main factors are qualified for the research work that is explained in the result section.

However, there are some drawbacks of the DM, including a high cost of implementation, screening specified expert opinions, and low levels of convergence (Ahmad et al. 2019b). In this regard, Murray et al. (1985) combined the concept of DM with the fuzzy theory, to reduce the uncertainty that lurks around the DM. Moreover, Ishikawa et al. (1993) enhanced the efficiency of the DM through the addition of the fuzzy theory and also improved the max-min fuzzy integration algorithms, to examine the frequency of the computers in the long term.

Dalkey and Helmer (1963) initially introduced the original Delphi method (DM) that has been used broadly in findings the factors influencing entrepreneurial intentions in academic graduates. After integration of the DM and fuzzy theory, Hsu and Yang (2000) introduced triangular fuzzy numbers (TFNs) to cover the judgment of experts and develop the FDM. Various difference and similarities exist between conventional DM and FDM are the following:

1. Both methods are employed in gathering the opinions of experts, which are suggested in group discussions.
2. To obtain reliability in expert judgment, various investigations are required in conventional DM that are not necessary for FDM.
3. Valuable information and contributions can be lost when consensus cannot be reached among the respondents and the experts obstructing consensus are eliminated from the response group. However, in the FDM, the judgment of experts is given importance by providing various categories for every possible consensus.
4. In comparison with the FDM, the DM requires more time to obtain expert judgments and is more expensive.

### **Selection of experts’ opinion and formation of Triangular Fuzzy Numbers TFNs**

In this study, to represent the consensus of experts with geometric means, the fuzzy Delphi method has been used. By using the TFNs, min, and max values given from experts’ opinions were calculated. The geometric mean was used as the value of TFNs outcomes to prevent the severity of values. During the calculation of the fuzzy Delphi method, the geometric mean is a max. or min. point value that is

assigned by experts is supposed to be interval points (Cardella, Hernández-Sánchez and Sánchez García, 2020). This study has shown that the geometric mean was used to draw the consensus that is provided from the experts' opinion. According to the results of the FDM, the experts indicated that all the identified barriers were significant and imperative to carry out a comprehensive evaluation in the ISM. Therefore, a list of 16 barriers met the criteria of the FDM and was used for the development of the hierarchical structure of the barriers through the ISM, further leading to the procurement of the driving and dependence capability of each barrier, with the help of the MICMAC analysis.

### Step 3: Interpretive Structural Modeling (ISM)

ISM is a methodology used for identifying contextual relationships among specific items, which define a problem or issue and first developed in 1974 by J. Warfield (Warfield, 1974). ISM is a process that could be utilized to convert obscure, negligibly defined, and complicated mental models of systems into visible and well-defined simpler models (Srivastava, Swami, & Banwet, 2014). Different studies in engineering and management have used ISM methodology (shown in Table 3), indicating its importance in using expert opinion effectively. The modeling is used to determine the contextual relationship of variables about an issue or problem. In practice, the various advantages of ISM methodology make it an attractive option. The advantages are as follow:

ISM helps researchers to explain a problem by identifying the existent interaction between variables (N. Kumar, 2013). A collection of elements that are directly and indirectly related to each other are structured into a systematic model; this is why ISM is clarified as an interactive learning process (Jayant & Azhar, 2014). To draw a map of indicated links that exist among diverse elements of an intricate decision situation ISM could be utilized (Grzybowska, Awasthi, & Hussain, 2014). Providing essential inputs for developing policy is one of the effective uses of ISM in most of the intricate human systems. Further, ISM incorporates experts' opinions in a more systematic and orderly manner (Khan et al., 2015; Talib et al., 2011a; Khanam et al., 2015). Azevedo et al. (2013) emphasized that the hierarchical model can also be presented in a chart instead of words, which can further help people avoid disturbances and more easily understand the content, point, and order of the research. That hierarchical model is consisting of 8 different stages that are given next

1. In the first stage, concerning strategies are identified.
2. In the second stage, the association of strategies is checked that shows either strategy influences each other or not.
3. In the third stage, the structural self-interaction matrix (SSIM) is designed to check the association of strategies that are considered in the study.
4. In the fourth stage, from the SSIM, the initial reachability matrix is generated, and further, it is tested for transitivity. Transitivity is essential to test the relationship of strategies in ISM. For example, strategy X drives strategy Y, and strategy Y drives strategy Z, then it is a must that strategy X should drive strategy Z.
5. In stage fifth, the reachability matrix is divided into various levels.
6. In stage six, a diagraph is generated based on levels derived in the previous stage.
7. In stage seven, the ISM model is designed by converting nodes of diagraph into statements.
8. In the last stage, the ISM model is tested again to confirm the consistency of the model if some inconsistency should be removed by modifications

The advantage of the ISM methodology is that variables can be categorized depending upon their driving power and dependence (Bernoster et al., 2018). The study has identified 16 basic inhibitors by studying relevant existing literature and through brainstorming methods. This study is applied the ISM approach to extend an interrelationship model for the inhibitors to transparency in HL. MICMAC analysis is used to recognize the driver and reliance of inhibitors to transparency applying the ISM approach.

Table: Demographics and interviewees profile

**Structural self-interaction matrix (SSIM)**

The structural self-interaction matrix (SSIM) was formulated through the shared debate and arrangement of the expert’s judgment (Esfandiar et al., 2019). A group of experts from different departments was invited to rate the different factors influencing entrepreneurial intentions adoption. Structural self-interaction matrix (SSIM) SSIM is developed through a session of brainstorming with different experts from the related field. Based on experience and knowledge, experts suggested their opinion regarding the relationship of different strategies among each other. The relationship of (i, j) strategies with each other was shown through the notations of V, A, X, O.

Thus, the relationship description of each symbol is given below:

- ‘V states that strategy i drive strategy j’;
- ‘A state that strategy j drive strategy i’;
- ‘X states that i and strategy j drive one another’;
- ‘O states that strategy I and j do not drive one another.

In the presence of a moderator in the brainstorming sessions, all the experts mentioned in Table given below developed an interrelationship between the different barriers of influencing entrepreneurial intentions.

Sr	ID	Type of Business	Gender	Age	Education	Designation	Experience	Employees
1	BA1	Business Administration	Female	36	Master	Hiring Manager	12	300
2	EE1	Electrical Engineering	Male	43	Bachelor	Site Manager	21	80
3	AD1	Academician	Male	48	Master	Assistant Registrar	6	5000
4	AD2	Academician	Female	31	PhD	Professor	5	5000
5	C1	Consultant	Female	29	Bachelor	Customer Success Associate	10	70
6	AD3	Academician	Male	44	Master	Deputy Director	16	5000
7	BM1	Business Man	Male	47	Bachelor	Regional Officer	20	1000
8	BM2	Business Man	Male	52	Bachelor	Manager	30	1500

**Initial reachability matrix (IRM)**

When structural self-interaction was completed then it was converted into binary values through the following rules:

- a) If the strategy (i, j) in SSIM poses a value of V, then (i, j) should be added as 1, and (j, i) should be added as 0 in the reachability matrix.
- b) If the strategy (i, j) in SSIM poses a value of A, then (i, j) should be added as 0, and (j, i) should be added as 1 in the reachability matrix.
- c) If the strategy (i, j) in SSIM poses a value of X, then (i, j) should be added as 1, and (j, i) should be added as 1 in the reachability matrix.
- d) If the strategy (i, j) in SSIM poses a value of O, then (i, j) should be added as 0, and (j, i) should be added as 0 in the reachability matrix.

The results for the initial reachability matrix as shown in appendix Table 4.

**Final reachability matrix (FRM)**

After the formulation of the initial reachability matrix, the final reachability matrix was formulated to find the transitivity. For example, if strategy A is connected with strategy B and strategy B is

connected with strategy C then strategy A and C must be connected. In appendix, Table 5 presents the final reachability matrix derived from the initial reachability matrix.

### **Level partition**

After classifying the final reachability matrix, the reachability sets and the antecedent sets of the barriers were identified from the final reachability matrix. Similar values from the reachability and antecedent sets were then added in the intersection set, and then the level partition was established through reachability set, antecedent sets, and intersection set. After this, each barrier was given their level and removed from the level partitions list. This method continued until all the barriers were allocated to their respective levels. Through this procedure, the barriers were divided into 5 different levels. These levels have been shown in the Table 4 to Table 10 (Appendix). All the extracted levels and the related barriers have been summarized in Table 3.

### **Reachability Set**

In level partition we made the reachability set first, the method is as follow:

We take row first of final reachability table and note the serial number of those column/cells which contain the digit "1". We write their serial numbers in the reach ability portion of the level partition table. Then we write in serial one. e.g., following serial numbers/column contain digit "1" 1,2,4,5,6,7,8,9,10,12,14,15 so we can write these numbers into reach ability set of serials one.

Note: Repeat the process for next and complete the reachability set.

### **Antecedent set**

An antecedent set is collected from the transitivity/final reachability matrix. We take column one and note the serial numbers of those cells which contain the digit "1". Then we write them in antecedent set-in serial number 1 e.g., all the elements of the first column of transitivity table are digit "1" (1,2,3,4,5,6,7,8,9,10,11,12,13,14,15), we write them in antecedent set-in front of serial No.1

Note: Repeat the process for next and complete the antecedent set

### **Intersection set**

To form the intersection set we take the intersection of reachability set and antecedent set e.g., we take intersection (common serial numbers only) of serial one of both the sets which is 1,2,5,6,7,8,9,10,12,14,15 so we write these values in the intersection set in front of serial no.1

Note: Repeat the process for next and complete the intersection set

### **MICMAC Analysis**

Matrices impacts croises-multiplication applique´ a classmate (cross-impact matrix multiplication applied to classification) is abbreviated as MICMAC. The purpose of MICMAC analysis is to identify the variables according to their driving power and dependence (Luthra et al., 2011; Kumar et al., 2013) into four regions. In the MICMAC analysis, the dependence power and driver power of the variables are plotted and analyzed. In the present research, MICMAC analysis has been used to validate the developed ISM-based hierarchy model (Laguna et al., 2019).

The MICMAC principle, which is based on the multiplication properties of matrices, states that, in binary matrix A, which identifies the existence of an arrow of influence (path of length 1), if variable X directly influences variable Y, and Y directly influences variable Z, then any change affecting X may have repercussions on Z. In other words, there is an indirect connection between X and Z. However, when matrix A is squared using Boolean algebra, second-order relationships between X and Z are revealed. Likewise, the 3rd, 4th, 5th ... nth powers of the direct relationship matrix reveal 3rd, 4th, 5th..., nth order indirect relationships among all variables. Each time the process is repeated, a new, more indirect, set of influences among variables may be produced. When, finally, the next stage of a multiplication of the set repeats itself, the matrix is said to be in a "stable stage" (Sharma et al., 1995). This stable matrix is then used for MICMAC classification.

### Autonomous barriers

Autonomous barriers primarily represent the barriers of low driving power and low dependence power. These barriers are not connected but still have some linkages that might be considered strong.

### Dependent barriers

The dependent barriers possess a low capability of driving the other barriers but tend to have strong dependence power. These strategies are much affected by other strategies

### Linkage barriers

Linkage barriers represent those barriers that have a high driving power and high dependence power. These barriers are not stable, and any impact on these barriers also impacts the other barriers. These strategies are quickly changed if some action is taken on one strategy, then it will influence other strategies also itself.

### Independent barriers

The independent barriers represent those barriers that possess a strong driving power and a low dependence power. An action taken for independent strategies can influence those strategies which are dependent on them.

Firstly, there is a need to make a VAXO table of the factors with the expert opinion of more than 40 well known self-made businessmen so that the collected data can be correct and make right results at level V of excellence otherwise there is difficulty comes in the way to level V.

### Results Analysis

The results of the analysis have been summarized in two ways. Initially, all the barriers are selected according to the opinion of the experts, and also after a survey from different papers that are given below in the table and then the results were discussed from the perspective of the ISM modeling technique, in which different levels of the ISM model have been discussed.

### Result of ISM Model

Since from the last many decades entrepreneurship lacks in academic graduates and students are not getting their career startup after their graduation and they are not getting the desirable career and if certain number of students move towards the entrepreneurship but still there are a number of those strugglers those cannot stand in the field of entrepreneurship as well and waste their time and money. In Pakistan if we look on the unemployment rate then there is a huge number of graduates. In this situation, Pakistanis also keento implement the entrepreneurial intentions in the academic graduates. But the implementation is not particularly smooth, due to various barriers that impede this process.

Table 1: Barriers Adoption (identified from literature)

Sr	Factors	Source
1	Personality Traits and Entrepreneurship	(Bhosal and KantR, 2016) (Van, Roman, Wang, & Liu, 2019)(Anne-Marie, 2020)
2	individual skill and effort	(Bhosal and KantR, 2016) (Butler, Vijayasarathy, & Roberts, 2020)
3	Involved Risk	(Guchait, Simons, & Pasamehmetogiu, 2016) (Kadir&Merican, 2017)
4	Business Visionary	(Bhosal and KantR, 2016) (Knight & Paroutis, 2017) (Miao & Anne, 2018)
5	Entrepreneurial Programs	(Kadir&Merican, 2017) (Pawel, Andrzej, Anna, & Michael, 2020)
6	Entrepreneurial skills	(Kadir&Merican, 2017) (Nangoli, et al., 2020)(Joy, 2021)

7	Creativity and Innovation	(Kabir et al., 2017) (Pawel, Andrzej, Anna, & Michael, 2020)
8	Career Choice	(Bhosal and KantR, 2016)(Chatterjee, 2020)
9	Entrepreneurial Intention	(Kadir&Merican, 2017)(Narang, 2021)
10	Entrepreneurial Actions	(Chia-Yu, Jack, & Yuzhu, 2018)(Zhao, 2020)
11	Motivation Factor	(Kabir et al., 2017) (Nangoli, et al., 2020) (Narang, 2021)
12	Competitive market	(Kabir et al., 2017)(Dhir, 2020)
13	Innovative and Unique Business Idea	(Kabir et al., 2017)(Kundu, 2021)
14	Self-employed Family	(Joshi & Summers, 2015) (Kadir&Merican, 2017) (Xiao, Patrick, & Zou, 2020)
15	Financial Resources	(Kumar S. , 2020)
16	Internal Business Environment	(Akhmetshin, 2017)

Therefore, the purpose of the current study is to investigate the barriers that hinder the implementation of entrepreneurship intention in the academic graduates of Pakistan. In this study, the ISM and MICMAC techniques are taken into account, in order to develop a hierarchical structure of the barriers that hinder the adoption of these entrepreneurship skills. In the ISM model, the barriers that are listed at the topmost level are considered to be the least important, whereas the barriers that are listed at the very bottom are the most critical barriers that drive the other barriers as well. Thus, in this particular research, a structural model of nineteen barriers has been designed, based upon the opinions of experts from the industry, professional consultants, and university professors.

Table 2: SSIM

Sr	Barriers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Personality Traits and Entrepreneurship		X	V	X	X	X	X	A	X	X	X	A	X	X	X	A
2	Individual Skills & Efforts			X	X	V	X	X	A	X	X	X	X	X	X	X	A
3	Involved Risk				X	X	A	X	A	X	A	X	A	X	A	X	A
4	Business Visionary					V	X	X	A	X	X	X	A	X	X	X	A
5	Entrepreneurial Programs						X	A	A	X	X	A	A	X	X	X	A
6	Entrepreneurial Skills							X	X	X	X	X	A	X	X	X	A
7	Creativity & Innovation								A	X	X	X	A	X	X	X	A
8	Career Choice									V	V	X	X	V	X	V	X
9	Entrepreneurial Intention										X	X	A	X	X	X	A
10	Entrepreneurial Actions											X	A	X	X	X	A
11	Motivation Factor												X	X	X	X	A
12	Competitive Market													V	X	V	A
13	Innovation and Unique Business Ideas														X	X	A
14	Self Employed Family															X	X
15	Financial Resources																A
16	Internal Business Environment																

**Categorization of Barriers**

After findings of every barrier in its level the final categorized table is made that is shown below.

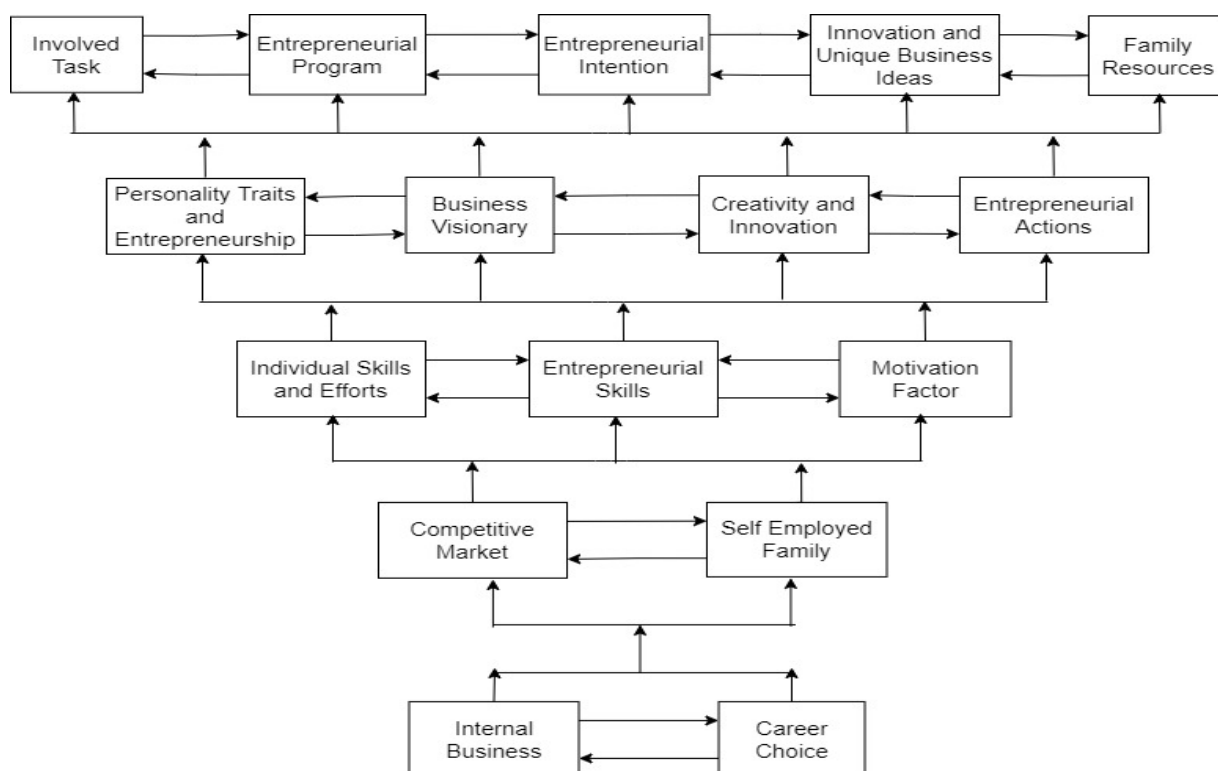
Table 3(a): Hierarchal levels of barriers

Sr. No.	Level	Barriers
B1	II	Personality Traits and Entrepreneurship
B2	III	Individual Skills & Efforts
B3	I	Involved Risk
B4	II	Business Visionary
B5	I	Entrepreneurial Programs
B6	III	Entrepreneurial Skills
B7	II	Creativity & Innovation
B8	V	Career Choice
B9	I	Entrepreneurial Intention
B10	II	Entrepreneurial Actions
B11	III	Motivation Factor
B12	IV	Competitive Market
B13	I	Innovation and Unique Business Ideas
B14	IV	Self Employed Family
B15	I	Financial Resources
B16	V	Internal Business Environment

Table 3(b): Hierarchal levels of barriers

Sr. No.	Level	Barriers
1	I	B3 B5 B9 B13 B15
2	II	B1 B4 B7 B10
3	III	B2 B6 B11
4	IV	B12 B14
5	V	B8 B16

First of all, we classify all the barriers into different levels and we have total of 5 levels that all are interconnected with each other as it can be seen from the hierarchy diagram given below.

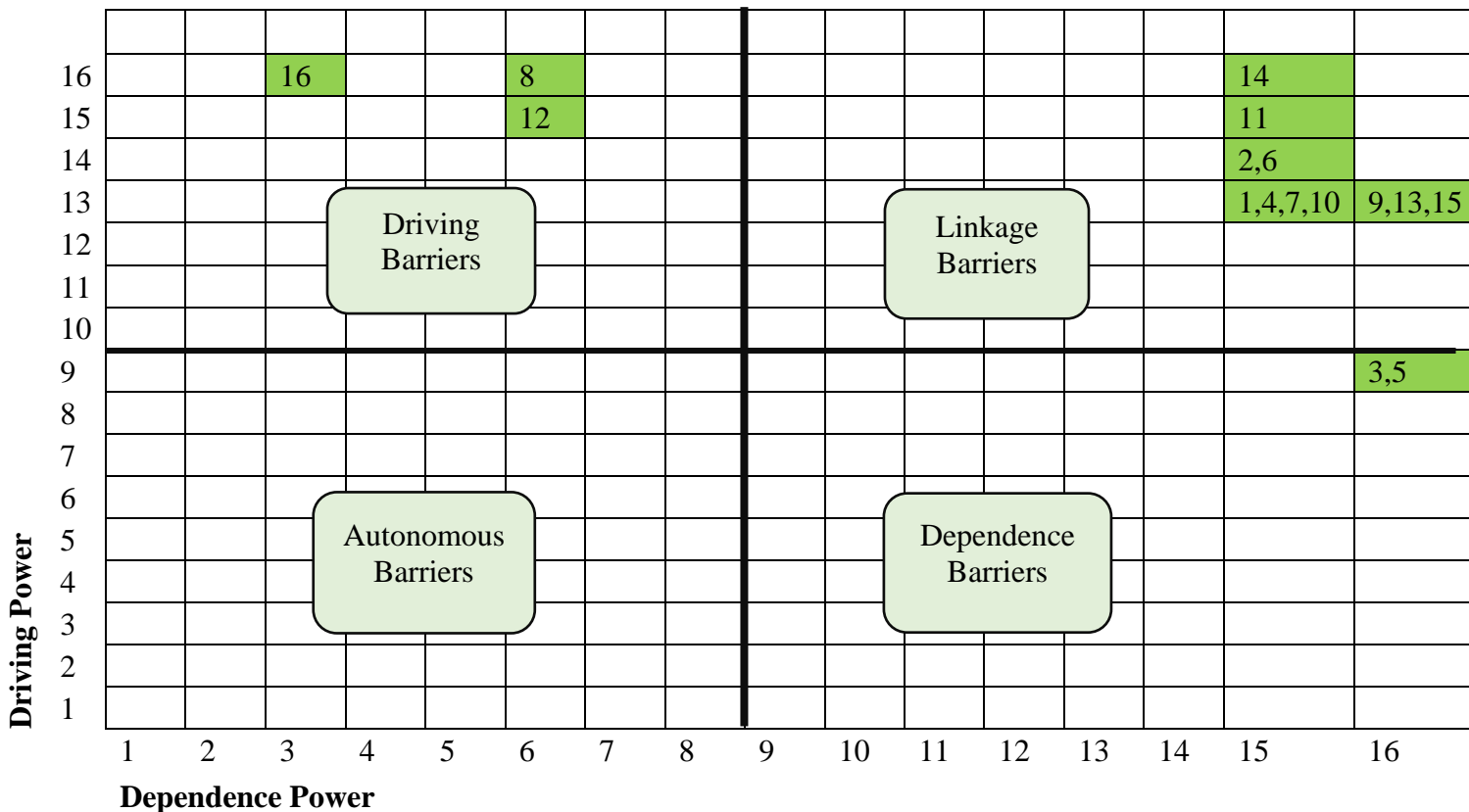




**Figure 2:** Hierarchical structure of barriers to adopting Entrepreneurship Intention

In the MICMAC diagram, we have four clusters and all the barriers are classified into these clusters i.e., dependent barriers, driving barriers, linkage barriers, and autonomous barriers that can be seen in table 4. We have 5 different levels and the factors in level 5 are the most critical factor in this study than those that are listed in level 1. So, we have explained the nature of barriers according to levels from 5 to 1.

Table 4: MICMAC analysis of barriers to Identification of factors influencing entrepreneurial intentions.



**DISCUSSION**

**Level of Barriers**

First of all, we have (B16) internal business environment barrier in which if one person does not have any business background in his/her family then it is very difficult for one graduate to start any business or career as an entrepreneur (Akhmetshin, 2017). A second most critical barrier is (B8) career choice it is a very important barrier to start any new business because it is how you move throughout the process to achieve your goal (Kumar A., 2018) and if your path to the goal is not specified correctly then it's very difficult for a graduate to become a successful entrepreneur in our society many students face a problem of career choice they don't know what career is important or is according to their personality and to their skill sets (Joy, 2021) and we don't get any Expert Opinion from our surrounding that help us in this career choice.

After level 5 barriers we have second most critical factors or barriers that come in a way of an entrepreneur is (B12) competitive market in this area the selection of market is very important because if you select the right market to start your business that is according to that market then it would help you at some extent (Tyagi, 2021). If you don't have any idea that to which market you are dealing with

then it became very difficult for a graduate to become an entrepreneur and start his or her own business in the practical market or in a competitive market where there is a lot of competition between the same business in different people and people doing many businesses since many decades and it's very difficult for you to stand out from those businessmen that are working in their field from many years (Dhir, 2020). Many graduates belong to a middle-class category of people who don't have any assets to produce an investment in any business they cannot even consider starting their own business or becoming an entrepreneur that acts as a barrier to become an entrepreneur.

The third level has three barriers start with (B2) individual skills and efforts in this it is clearly can be observed that it's all about the skills and effort level required for a business startup (Suresh, 2021). People give importance only to the piece of paper that we call degree they don't understand that there is no need of degree or there is no benefit of degree without any skill if you don't have any skill then it's not enough for you to have just only a piece of paper and its major mistake of many graduates in Pakistan that they only rely on a degree and don't think about to gain skill and don't effort for any practical work. The next one is (B6) entrepreneurial skills, apart from incredible skill and effort, entrepreneurial skills are also very important (Gandhi, 2020) because if you don't have any idea in your mind about the business terms that what business is and how you are going to start it and which path you are going to take for your business then it becomes a major barrier in your path to becoming an entrepreneur because with your skill and the right business idea you can make it through and you can stand out from a bunch of businessmen and you can give your best in your field in your skill if you have a right business skill and right business idea (Kundu, 2021). The third one is the (B11) motivation factor this factor is very much important for an entrepreneur because business is all about motivation it's all about determination and it's all about hard work so if you don't have patients then you can't become a good businessman because in a business you have to face many ups and many downs that will affect your thinking that will affect your personality (Narang, 2021). If you don't have any motivation factor related to your business then it's very difficult for you to stick on your plan of becoming a great businessman this ends the level 3 barriers now, we move to the level two barrier.

The first one is (B1) personality traits and entrepreneurship this factor it is very important for one graduate that he or she should have a personality that shows there that shows the interest of a person in the business if you don't have any interest in the business or you don't have your right body language that is needed to start a business or that is needed to become an entrepreneur (Chatterjee, 2020) then it's very difficult for a graduate to even think about his or her own business so the personality trait you should have your personality according to the business (Al-Subaie, 2021). The second one is (B4) business visionary in this factor you can see that business vision is very important to start any business because a vision is a mental image of what you want your business to be at some point in the future based on your milestones and inspiration a vision statement capture in writing or in any diagram that will help you to remember your path to achieve your goal so if a graduate does not have any business vision, then a graduate can't become a successful entrepreneur (Din, 2020).

The next one in the level 2 in which (B10) that is entrepreneurial action refers to the behavior that is in response to a judgmental decision under uncertainty about any possible outcomes in the business (Menon, 2020) so if a graduate has a good decision-making ability in the different situation regarding his or her business then it will prove very valuable for him or his or her business.

The last level is level 1 and it includes five barriers. Level one is least important but it has its path for a graduate to become an entrepreneur for the first one (B3) involved risk when you are going to start a new business then you also know about the cons and pros of your business that you are going to you performed in the market so this will help you to identify all the risk that may because due to any uncertainty situation or any circumstances that will affect your business (Zhao, 2020) so this factor requires a very expert opinion or you have experienced man of that business then you can know about all the involved risk in the in that business. The second barrier is (B5) that is entrepreneurial program is very important to learn by the graduates if they want to start their own business but unlucky we don't have much resources from which we can learn about entrepreneurship due to lack of information about business for graduates and they don't know to which extent they can use their skills to start their own new business due to lack of intercultural programs or due to lack of information about in

entrepreneurship program a graduate cannot be able to become an entrepreneur(Singh K. , 2021)(Adelaja, 2020). The next one is (B9) that is entrepreneur intention can be defined as the conscious state of mind that precede action and direct attention to identify behavior such as starting a new business or becoming an entrepreneur so on this includes the attitude of a graduate towards entrepreneurship(Soomro, 2020) so if on someone want to start its own business then it's very important for him or her that he or she has whole all intention to earth in business that includes all the factors that they are going to use in the business they have to plan their path they have there could be a leader of their program so they must know about the leadership skills and they have their personality according to their business so if and they should perform their acts also according to the business that they are want to has start so all these thing added up to intention that it helps a graduate to start his own business(Strydom, 2020). The next one is the next barrier is (B13) that is innovation and unique business ideas this is a least important but this is the barrier in which many graduates this is the barrier to which many graduates cannot overcome it because in the business market there are many ideas already exist in the marketplace and if you want their business to be successful in the future then you must have some innovation or uniqueness in your business(Pathak, 2020) so has only then people will attract to your business and they will start business they will start buying or purchasing or they will do business stuff with you and then if you don't have any innovation or uniqueness in your business then it's really difficult to you too to stand out in the market place and has this is the factor in which many graduate fails or can't get it can get with through it(Singh S. , 2021). The last factor in the level 1 is (B15) that is financial resources so as we are dealing with least important factors so you can say that finance has may or may not be important to start a business.

if you have good idea to have skill related to the business then you can make your own finance rather than to invest in the business at the initial step so has many graduates don't have much financial support from their family or from any other resources so they give up by thinking that how they are going to start their business if they don't have measurement to start it(Kumar S. , 2020).

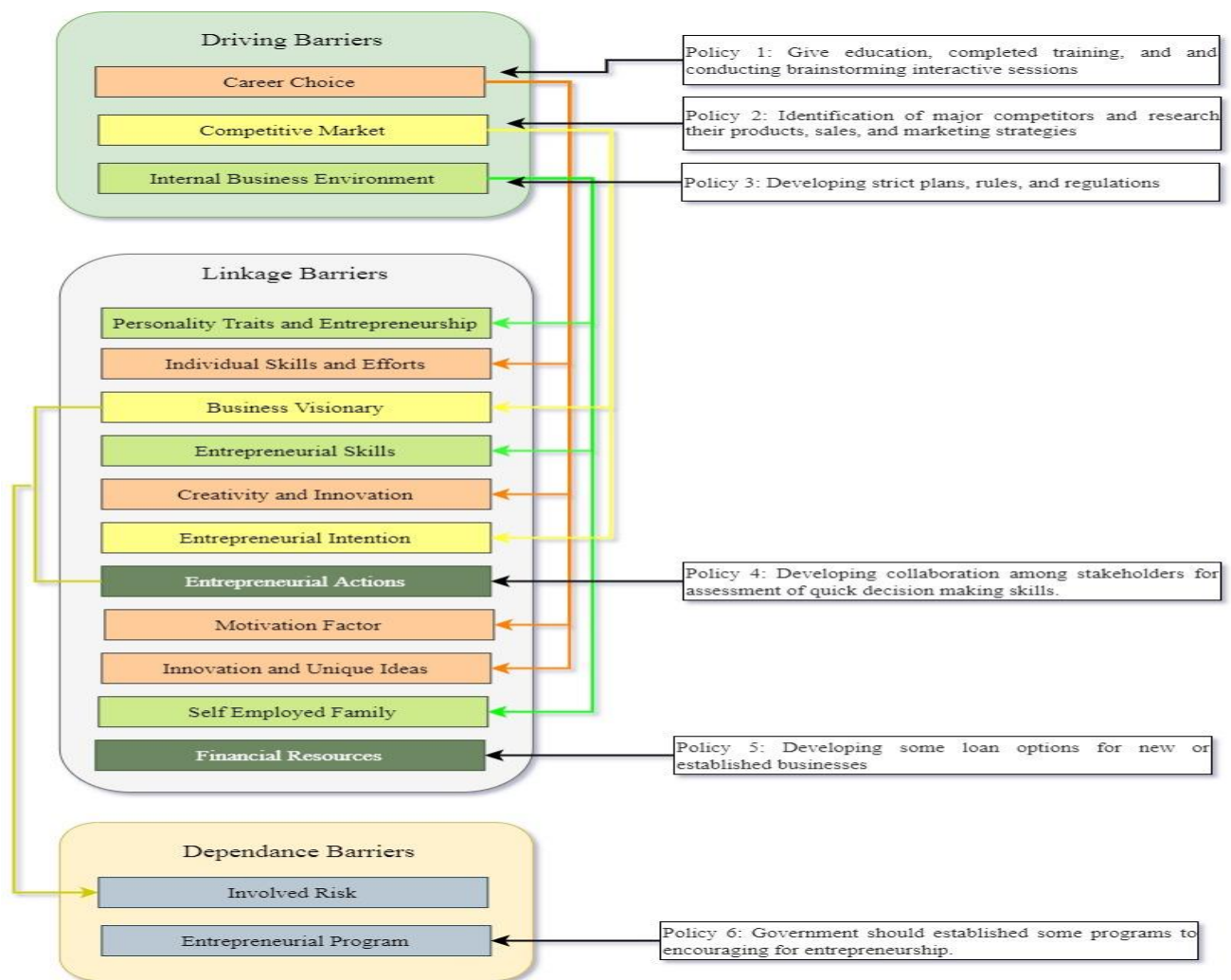
These are all the given 16 barriers that we are studying in this study and we have categorized in to five levels according by using Micmac analysis and then we find out the Micmac importance of each factor out of importance of each factor so that we should follow this tab or we can train our graduates to start their business fine knowing these all barriers and by also knowing how to overcome this barrier how to meditate is barrier or how to overcome all these barriers so that they can become a successful entrepreneur in a market.

### **Policy Recommendations for The Mitigation of Influencing Entrepreneurial Intentions**

In this section we discussed about how to mitigate all the barriers by applying different types of policies and by giving some different kinds of suggestions that is given in figure 3 so that all the barriers may be reduced and there would be a good and equal chance for a graduate to have all above entrepreneurship intention.

#### **Mitigation of 1<sup>st</sup> level barriers**

First, we take barriers of level 1 in which the first barrier is involved risk that can be mitigate by having the expert in your team so that the expert will aware you from all different kinds of involved risk in that particular business that you are going to start then you have a better chance to deal with the risk (Anne-Marie, 2020). The second one is entrepreneurial programs, in developing country like Pakistan government should arrange some programs to give awareness and enhancement of creative thinking, and enhancement the mental power of graduates so that the graduate have a good chance to start better career in entrepreneurship and they have better intention to their goal provide them with the good entrepreneurial intention (Anne-Marie, 2020). There should be some programs or some seminar or different competition between different universe students of different universities and arrange the competition of giving different ideas of businesses.



**Figure 3:**Policy implications to overcome the barriers

so, the mental level of all the graduates could be enhanced the last queries financial resources 4 mitigate this factor we should brains brainstorming we should do brainstorming of the graduates because the financial issue is not a big deal if you have a good entrepreneurship idea and skill and you have ability to apply to give your full effort to achieve your goal then financial issue will no longer any barrier to the businessman

**Mitigation of 2<sup>nd</sup> level barriers**

Now, in level 2 we have 4 barriers first one is (B1) personality traits and entrepreneurship. To overcome this barrier there should be some training of graduates and the trainers should be given by the experts of some industrial level or academic level so that the expert can trained the graduates to acquire the personality that is required by a good entrepreneur so student should practice those steps explained by the experts and implement them on their personality to groom their personality traits and create a good intention towards entrepreneurship (Anne-Marie, 2020). The second one is business visionary and for the vision of a business one should be a part of some pre-established business or work with some success businessman so that a graduate can learn what the basic vision that one business must have. The next one is creativity and innovation. Graduate should possess the personality of full of excitement and ready to learn new things as the graduate is ready to learn new things then the

creativity in his mind will produce automatically and graduate can impart the innovation in his idea. For this universities should arrange the seminar to direct contact with the graduate and teach them the steps necessary to build the mind power (Anne-Marie, 2020). The next one is entrepreneurial action in which one should have a good decision-making ability and have a patient patience to bear the critical circumstances while doing the business only when a graduate can possess the entrepreneurial action.

### **Mitigation of 3<sup>rd</sup> level barriers**

The barriers include in level 3 are just related to one individual personality because it has direct relation with individual skill, his effort, his mentality, and his passion so graduate should possess good intention to learn the good skill and become the master in his or her skill only then he or she gives his full effort for the business with full passion (Anne-Marie, 2020). Secondly, they should have a good communication with the expert of the business and there should be some interactive session between the expert and the graduates so that the expert can motivate the graduate for the entrepreneurship.

### **Mitigation of 4<sup>th</sup> level barriers**

The barriers of level 4 are about the marketplace knowledge and well-established business categories of families. Graduate must acquire the knowledge about the marketplace and should have the in-depth knowledge about all the business is running out in the market because only then graduate will be able to select the business that is valuable during that era (Anne-Marie, 2020). Well-established businessman can contribute in the awareness of the entrepreneurship in the graduate because they have complete and utter knowledge about the business that they are doing and have tangible and intangible rewards.

### **Mitigation of 5<sup>th</sup> level barriers**

The last level also contain two main critical barriers the first one is carrier choice by the graduate because developing country like Pakistan have high rate of unemployment it's only due to lack of knowledge to select the career there is need to make a group of expert that have was knowledge in different field of life and they should concern and University should concern to the specific group of experts to guide and motivate their graduates and help them in the choice of their career successfully and if a graduate successfully choose his or her career then it is easy for him or her to select the right business (Anne-Marie, 2020). The last barrier that is (B16) internal business environment it is needed to create a space for information sharing to the graduates so that it is easy for them to create a business mind (Anne-Marie, 2020). There should be some plan extracurricular activities for the business graduates in the university about the business planning.

## **CONCLUSION**

Multiple factors are affecting the implementation of entrepreneurial activities in the educational system in the developed countries as Pakistan. The person or student having the entrepreneurial intentions are having a higher degree of their entrepreneurial traits and the activities rather than focusing on other career opportunities as seeking for the job. These people are focused on getting entrepreneurial achievement rather than seeking job opportunities and then excelling in the specific field.

There are very few people who are guided well about their skills and abilities to get the right use of their abilities, and some of the people could never be able to recognize that either they are possessing the entrepreneurial skills and abilities. If the internal business environment becomes pleasant, everything goes according to the plans made by an entrepreneur. The deficiency of this type of environment in Pakistan is one of the reasons that restrain the students to choose the career of an entrepreneur. To choose the career of an entrepreneur is not difficult in developed countries as it is almost a normal thing there, but in developing countries like Pakistan, where getting employment after graduation is considered a success, it is much difficult for students to start a new enterprise as many risks are related with a new business based on innovative research.

Entrepreneurial intention is the setup of mind that encourages the person to think about starting a new business, having an interest in the trend of the market according to their field, and taking some risks by

investing. The starting of a new business has many risks related to it and in a society where people do not choose this career, it becomes more difficult for a person who wants to start his business based on some innovation and new research. The ability or skills of innovation and creativity help people to devise new ideas and development of business. They are more determined to find their way to success.

**RECOMMENDATIONS**

Here are the following parameters and strategies that can be adopted in the introduction of the entrepreneurial degree in the developing countries as

The training of educational system controllers is necessary as they can get to know the emerging trends of business opportunities of students rather than training them for seeking job throughout the career.

There is a need to introduce the thinking of a generation of job opportunities rather than seeking the job and facing the issues of unemployment.

Entrepreneurship is necessary to minimize the issues and problem and job opportunities when students are trained to start their business rather than being unemployed

The government should provide financial support to increase the wiliness among the students to start their business.

The introduction of technology and awareness seminars must be conducted to highlight the importance of starting one’s own business.

**Appendix**

Table 4: Initial Reachability Matrix

Sr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0
3	0	1	1	1	1	0	1	0	1	0	1	0	1	0	1	0
4	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
5	1	0	1	0	1	1	0	0	1	1	0	0	1	1	1	0
6	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0
7	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
10	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
13	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 5: Final Reachability Matrix

Sr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Dr. P
1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	14
3	0	1	1	1	1	0	1	0	1	0	1	0	1	0	1	0	9

<b>4</b>	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
<b>5</b>	1	0	1	0	1	1	0	0	1	1	0	0	1	1	1	0	9
<b>6</b>	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	14
<b>7</b>	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
<b>8</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<b>9</b>	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
<b>10</b>	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
<b>11</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
<b>12</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
<b>13</b>	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
<b>14</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<b>15</b>	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	13
<b>16</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<b>Dep. Power</b>	15	15	16	15	16	15	15	6	16	15	15	6	16	15	16	3	430

Table 6: LEVEL 1

Sr	Reachability Set	Antecedent Set	Intersection Set	Level
1	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	
2	1 2 4 6 7 8 10 11 12 14 16	2 4 6 7 8 10 11 12 14 16	2 4 6 7 8 10 11 12 14 16	
3	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	I
4	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	
5	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	I
6	1 2 4 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	
7	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	
8	1 2 4 6 7 8 10 11 12 14 16	6 8 11 12 14 16	6 8 11 12 14 16	
9	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	I
10	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	
11	1 2 4 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	
12	1 2 4 6 7 8 10 11 12 14 16	2 8 11 12 14 16	2 8 11 12 14 16	
13	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	I
14	1 2 4 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	
15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	I
16	1 2 4 6 7 8 10 11 12 14 16	8 14 16	8 14 16	

Table 7: LEVEL 2

Sr	Reachability Set	Antecedent Set	Intersection Set	Level
1	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	II
2	1 2 4 6 7 8 10 11 12 14	2 4 6 7 8 10 11 12 14 16	2 4 6 7 8 10 11 12 14 16	

	16			
4	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	II
6	1 2 4 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	
7	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	II
8	1 2 4 6 7 8 10 11 12 14 16	6 8 11 12 14 16	6 8 11 12 14 16	
10	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	1 2 4 6 7 8 10 11 12 14 16	II
11	1 2 4 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	
12	1 2 4 6 7 8 10 11 12 14 16	2 8 11 12 14 16	2 8 11 12 14 16	
14	1 2 4 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	1 2 6 7 8 10 11 12 14 16	
16	1 2 4 6 7 8 10 11 12 14 16	8 14 16	8 14 16	

Table 8: LEVEL 3

Sr	Reachability Set	Antecedent Set	Intersection Set	Level
2	2 6 8 11 12 14 16	2 6 8 11 12 14 16	2 6 8 11 12 14 16	III
6	2 6 8 11 12 14 16	2 6 8 11 12 14 16	2 6 8 11 12 14 16	III
8	2 6 8 11 12 14 16	6 8 11 12 14 16	6 8 11 12 14 16	
11	2 6 8 11 12 14 16	2 6 8 11 12 14 16	2 6 8 11 12 14 16	III
12	2 6 8 11 12 14 16	2 8 11 12 14 16	2 8 11 12 14 16	
14	2 6 8 11 12 14 16	6 8 11 12 14 16	6 8 11 12 14 16	
16	2 6 8 11 12 14 16	8 14 16	8 14 16	

Table 9: LEVEL 4

Sr	Reachability Set	Antecedent Set	Intersection Set	Level
8	8 12 14 16	8 14 16	8 14 16	
12	8 12 14 16	8 12 14 16	8 12 14 16	IV
14	8 12 14 16	8 12 14 16	8 12 14 16	IV
16	8 12 14 16	8 14 16	8 14 16	

Table 10: LEVEL 5

Sr	Reachability Set	Antecedent Set	Intersection Set	Level
8	8 16	8 16	8 16	V
16	8 16	8 16	8 16	V

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