Factors affecting for the entrepreneurship intention of undergraduates

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Abstract—Entrepreneurship can be defined as generating new business opportunity to create profit for the entrepreneur. In entrepreneurship culture, other than being an employee people are interested to be owners of business through creating new business ideas. It also generates innovative products, new job opportunities and economic development in a country. Improving the interest of university students to become entrepreneurs will lead them to obtain many benefits such as being flexible in their schedules, gaining different experiences, being a leader rather than someone’s follower and can create a recognition for themselves. Entrepreneurship concept is also beneficial for the economy of the country that innovations generated through entrepreneurship will increase the living standards of the society. It will also provide a solution for the problem of increasing unemployment rate by creating job opportunities in new business ventures. This research article studies the factors affecting undergraduates to become entrepreneurs.

Seven recent researches are selected to find out the factors affecting Entrepreneurship intention of undergraduates. According to the findings four categories were identified as follows: positively affecting, negatively affecting, nature is not clear, and those affecting and not affecting.

Keywords—Entrepreneurship; Entrepreneurship intention; Entrepreneurship intention of undergraduates; Entrepreneurship interest; Entrepreneurial intention

I. INTRODUCTION

Entrepreneurship is defined as starting a new business through planning and arranging business plans and dealing and accepting the risk which comes along with starting a new business to generate profit. Planning, innovative ideas and ability of taking risks come along with the talent of the entrepreneur acquired through their education. This can be called as a process which combines the creativity, organizing ability, managing ability of an entrepreneur and new ideas to generate profit through a new business venture [1]. Entrepreneurship is considered as an important factor in the growth of the economy of a country [2], [3]. Entrepreneurship is identified as an essential factor for the development of the economy of a country that it works toward generating new job opportunities in the country while reducing the poverty of the country, generating and increasing the income level of the country and creating wealth [4].

Entrepreneurship can also be defined as a process which uses land, capital and labor as the input to deliver a product to the consumers through the ability of the producer with their talent and skills gained through the education to select the correct opportunity and invest to establish a successful business venture [5]. It is argued by many researches that entrepreneurship plays an important role in the economy of a country. Entrepreneurship increases the growth of the economy of a country and promotes investment opportunities [6].

The factor which will negatively affect entrepreneurship are the inadequate amount of capital, irrelevant education provided education institutes regarding entrepreneurship lead students to focus on careers other than focusing on entrepreneurship to be self-made men. The fear factor of the individual to take the risk to start their own business is another negative factor toward entrepreneurship, which will also impact by the political and social environment of a country. Government has to support entrepreneurship by building a strong infrastructure platform for the entrepreneurs and establishing stable political environment to increase the attraction toward entrepreneurship [7].

Entrepreneurship education builds a relationship between the student and the industry through higher education system. Entrepreneurship education for United Kingdom undergraduates was launch in the year 2004 by the national council. The intention was to introduce the entrepreneurship culture for the students in higher education system in United Kingdom [8]. Entrepreneurship education is identified as a necessity in building the nation through generating entrepreneurs from entrepreneurship education for the society [9]. The education system must be updated by developing entrepreneurship opportunities and activities considering the development of the country [10].

Entrepreneurship is an educational concept which is developed to deliver functional education for the students. It will lead students to be self-employed. Entrepreneurship education deliver undergraduates
training to generate innovative ideas with creativity in mind set to establish new business ventures. This makes undergraduate a part of development of the economy to lower the rate of poverty in the country and generate job opportunities in the country [11].

Entrepreneurship is one of the leading topics today that in most of the countries well educated entrepreneurs take an essential part in this discussion. Majority of the top entrepreneurs have educated and graduated from university when compared to the employees who work for companies [12]. The companies which are owned by entrepreneurs who are graduated from universities show higher impact toward the economy of the country through higher economic growth rates and generating new job opportunities [13], [14].

One of the barriers in entrepreneurship is not having the relevant skills to transfer individual’s idea into a successful business idea. But providing entrepreneurship education will support individuals to convert their innovative ideas into successful business ideas and develop the economy of the country [15]. Ability in planning businesses is essential in the career development of entrepreneurs to create new businesses in the society [16]. The first entrepreneurship education courses were started in 1930s by Harvard school of business and then United States of America introduced entrepreneurship education for their universities and colleges. With such a long history, more than 700 universities in the United States of America are currently teaching entrepreneurship courses [17]. Education courses which are specifically prepared and structured to increase the knowledge of students regarding entrepreneurship are essential to convert undergraduates into entrepreneurs. The teaching styles in entrepreneurship courses must be differentiated from the traditional classroom education system [18], [19]. Ordinary management courses offered by the higher education institutes will not significantly impact on intentions of undergraduates to become entrepreneurs [20].

This study aims to discuss the factors affecting to entrepreneurship intention (EI) of undergraduates. The study also explores how education impacts on EI of the undergraduates.

II. LITERATURE REVIEW

A. Entrepreneurship education vs EI of undergraduates

Various factors affect to EI of the undergraduates and entrepreneurship education is considered as a major factor. Entrepreneurship education is referred as the theoretical education and the training given to a university student regarding entrepreneurship. The intention of being an entrepreneur will be affected through the knowledge gained though universities. The desire to become an entrepreneur is gained through knowledge and the feasibility of individual [21]. Entrepreneurship education impacts to EI of an individual positively. People who are lack with proper education background are less likely to have EIs due to lack of knowledge [22]. Education and training programs received through university education courses play a vital role to have EIs because education provided by a university affects significantly to students when selecting a career path [23]. Establishing entrepreneurship educational courses is considered as the foundation for entrepreneurship in Turkey [24]. Entrepreneurship education was recognized as a factor which influences students to develop their interest to be an entrepreneur [25]. Study conducted in four individual countries to investigate entrepreneurship education and its impact on the EI of students reveals that each country must provide customized education regarding entrepreneurship according to the culture of the country. Entrepreneurship education revealed to be impacting on EI of students in these countries [26]. Furthermore positive impact can be observed toward EI of students resulted through entrepreneurship education courses [27]. A relationship between entrepreneurship education and EI of individuals is recognized through research studies and proved to be a key factor in graduate contribution to the economy of a country [28]. Entrepreneurship education provided by the universities can be considered as a long term investment that its returns will be received in long term. It will take time to increase the development of the country through entrepreneurship [29]. Entrepreneurship education will lead the EI of youths in a country [25], [30], [31]. Offering more entrepreneurship education courses aim to generate more entrepreneurs from undergraduates [32]. Entrepreneurs in the future are immersed through the undergraduates so the education they get through universities should focus on entrepreneurship [33], [34], [35]. Insufficient level of education provided to students about entrepreneurship will tend to impact negatively on EI of students. It implies that decreasing education regarding entrepreneurship will reduce future entrepreneurs [36]. Entrepreneurs who received entrepreneurship education have higher success rates in the field than the other entrepreneurs. It shows entrepreneurship education positively impacts to the success level of entrepreneurs [37].

Offering entrepreneurship education for the students improves the knowledge of students regarding entrepreneurship and it builds confidence too [38]. Entrepreneurship education recognized as one of the most essential factors which influence attitude of students toward entrepreneurship [39], [40].

Research study conducted in Turkey to study the factors affecting EI of university students resulted that education support provided by universities impacts positively on EI of undergraduates. University background which provides adequate level of entrepreneurship courses in their education will positively impact for young university students to choose a career path as an entrepreneur. Hence developing EI is a responsibility of both policy makers and educators. Universities must develop students’ knowledge and awareness regarding
entrepreneurship while supporting student’s innovative ideas which are leading to be an entrepreneur. Also universities must support students in developing entrepreneurship skills [41], [42].

EI of university students were examined in three different universities and the EI of students were affected differently in the above selected universities. The different cultures of universities affect students to have different EIs. Research study concluded that the universities should responsible for the career path selection of undergraduates as entrepreneurs [36].

A study conducted in Singapore regarding EI of students reveals that education level of undergraduates significantly affects their intention to select a career to be an entrepreneur. Entrepreneurship education provides the knowledge to undergraduates how to measure the risk in starting their own businesses through raising awareness of entrepreneurship concepts [44].

B. Family background and Perceived support impact vs EI of undergraduates

Study conducted in Pakistan University, shows a higher level of EI among students. EI of students is affected positively through family background and the personal experience gained through the family background [45]. Family backgrounds of students are recognized as a factor which influence intention of students to start their career as entrepreneurs [46], [47].

Research study conducted in Malaysia through university students resulted that the family background of university students impacts for the intention of these students to be entrepreneurs in the future. Students who come with a family background of entrepreneurship are more likely to continue their family footsteps of being an entrepreneur [48]. Study conducted in Singapore resulted that entrepreneurial intention of students is impacted by business experience gained through the family background. Family background is considered a significant factor toward EI of students [44].

Career selection of a person is affected by the family background they are coming from. The support gained through family for a student is a significant factor for selecting the career path [25]. In a study conducted among psychology and business students resulted that the support provided by the family positively affects the students’ intention toward entrepreneurship [50]. Financial support received from the family supports entrepreneurs to establish businesses out of business ideas [51].

Study conducted in Turkey reveals, social factors such as family background of an individual impact to the selection of career path [41]. Having a family background related to entrepreneurship acts as an important factor to influence individual intention to become an entrepreneur [52]. Characteristics of the family influence individuals to developing starting ups and new business ventures new business by providing opportunities. Family characteristics significantly impact toward EI of individuals [53]. People who have exposed to entrepreneurship before are selecting a career in entrepreneurship. Family background or a family member who involved in entrepreneurship arouses the intention of the person to become an entrepreneur [54], [55].

Research carried in Pakistan regarding entrepreneurship career intention of business undergraduates resulted that family background of business undergraduates impacts to the intention to select their career path to become an entrepreneur because of the entrepreneurship experience gained through the family background regarding entrepreneurship [42]. Research study conducted in Netherland implies that entrepreneur father has a significant impact toward entrepreneurial intention of individuals [56]. Research study conducted in Singapore to find out the factors affect the interest of university students of Singapore toward entrepreneurship resulted family factor significantly impacts to an individual to select a career to start their own business empire [44].

C. Gender Differences vs EI of undergraduates

Research study done in Pakistan resulted that gender difference in university students does not impact to become entrepreneurs [42], [45]. Gender is considered as a factor which will influence to impact the individual opinion in being an entrepreneur according to another few researches [46], [47]. Research study conducted in Singapore resulted that gender of an individual significantly impacts toward the entrepreneurial interest [44]. Men show higher level of impact toward selecting a career as an entrepreneur than percentage of women in the equal conditions and the background [57].Several studies resulted that the intention of males regarding entrepreneurship seems to be higher than females. The reason for this difference is because of the social support provided to males is higher the females [49].

Women are facing more challenges compared to men. Women face difficulties in finding capital to start up businesses [58]. Rate of successful female entrepreneurs is low compared to rate of successful male entrepreneurs. The profit made by female entrepreneurs is lower than male entrepreneurs too [60]. Stereotype nature of females identified as the reason for woman entrepreneurs to face difficulties in selecting a career path to be an entrepreneur [61].

Research study conducted in Netherland resulted that male students’ show strong aspiration toward entrepreneurship than the female students [56]. Males show a stronger intention toward entrepreneurship than the females according to another research [62]. Research conducted among Israel migrants in Russia shows of males are more interest on entrepreneurship than females [63].

Gender difference impacts toward entrepreneurial intention of students who are not degree holders or people who are not professionals but for the professional and undergraduates gender differences doesn’t impact toward EI [64].
D. Subjective norms impact vs EI of undergraduates

Subjective norms are recognized as one of the important factors of planned behavior theory; it is how family members and friends of individual person believe regarding individual work on performing a task [65]. Theories such as planned behavior theory conclude that intention of an individual is affected by subjective norms. It implies that EI of an individual is impacted through subjective norms [66].

Positive impact toward entrepreneurial intention from subjective norms was identified in research studies [67]. In countries such as Taiwan and Spain EI of individuals are impacted by subjective norms of the society. This concludes that subjective norms positively impact toward EI of individuals [68]. In twelve countries it is studied that there is a significant impact of subjective norms toward intention of individuals to become entrepreneurs [69]. Subjective norms can be recognized to have a least impact to EI of individuals compared to other factors [70].

EI of individuals is impacted through factors such as subjective norms and subjective norms represent a positive impact toward EI [71]. Many studies found that there is a significant impact toward intention of individual from subjective norms [30], [72], [73], [74].

Study conducted in London Business School shows there is no significant impact toward entrepreneurial intention from subjective norms [75]. Number of studies found that there is no significant impact of subjective norms toward individual intention [75], [68].

Research conducted among university students of Pakistan to study the EI of students who study in public universities shows subjective norms positively impact toward EI of individuals. And subjective norms are recognized as a factor which impact EI of individuals in the country [45].

E. Perceived behavioral control vs EI of undergraduates

Perceived behavioral control shows an impact toward EI of individuals according to the planned behavior theory [66]. Perceived behavior of an individual regarding career path significantly impacts toward EI [75].

Perceived behavior of individuals in a country impacts positively toward intention of selecting career choices. This concludes that perceived behavior positively and significantly affect to EI of individuals [43].

Research study conducted in Norway resulted that perceived behavior significantly impacts toward recycling intentions of individuals but does not show an impact toward exercising intentions of individuals [76]. Research conduct in countries such as Taiwan and Spain resulted that perceived behavior positively impacts to the intention of individuals [68].

A Research shows perceived behavior as a factor which impacts to EI of individuals negatively [71]. Positive relationship between perceived behavior and EI can be identified in many research studies [75], [77], [78], [79], [80], [81],[82].

Research study conducted in China and Indonesia resulted that there is an indirect impact of perceived behavior toward EI. But the impact is recognized as negative [83].

F. Attitude vs EI of undergraduates

Attitude of individuals regarding entrepreneurship is defined as a positive concern in accepting responsibility of their own regarding entrepreneurship. Individual intention of doing something is affected by the factor attitude of an individual. Attitudes toward behavior impact to the intention of individual according to planned behavior theory [66]. Attitude is a factor which affects EI of individuals indirectly [78]. Study conducted in London Business School resulted that attitude of an individual toward entrepreneurship significantly impacts to EI [75].

Students attitude toward entrepreneurship career can consider as a major predictor of entrepreneurial intention of individuals, attitude of individual toward autonomy will also shows an impact toward individual opinion toward being an entrepreneur and selecting a career as an entrepreneur [93]. A positive relationship between the two variables attitude of individuals and entrepreneurial intention of individuals were recognized which conclude that attitude of individual impact toward entrepreneurial intention of individuals [94], [80].

Research study conducted among Pakistan university students to investigate the factors affect EI resulted that there is a positive impact of attitude of individuals toward the EI [45].

G. Personality traits vs EI of undergraduates

Personal traits of an individual are defined as conscientiousness, extraversion and openness. Research study recognized that openness, extraversion and conscientiousness which define personal traits impact EI of individuals [85].

Personality traits show an impact toward EI of individuals to become entrepreneur [86]. A positive impact from personality traits to EI can be identified also [87]. Impact of personality traits is essential to start up their own business to be an entrepreneur [88]. Personality traits of individuals recognized as a factor which impacts toward selection of career path as entrepreneur [85].

Research study conducted in Malaysia to study factors affecting EI of business students shows personality traits is the indicator of readiness to start career as an entrepreneur. It makes students confidence to face the barriers [48].

Personality trait factor impacts toward the activities of an individual to become entrepreneur [89]. Personal traits of an individual shows positive impact towards intention of individual to select a career as an entrepreneur and doing activities related to entrepreneurship [90]. Research studies recognized readiness to take risk as a measuring factor of personal traits of an individual and the readiness of
taking risk makes a positive impact toward being an entrepreneur. Overall personality traits of an individual positively impact toward EI of individuals [91]. Study conducted in Germany to study the factors affecting EI of engineering student at MIT resulted readiness to take risk which is recognized as a factor to measure personal traits shows a positive impact toward selecting a career path to be an entrepreneur. It concludes personal traits of has positive impact toward EI of engineering students [92].

II. Environmental factors vs EI of undergraduates

Environment of a country is referred as the surrounding around people in the world, the conditions faced by the people and circumstances which affect to the development of a country and its society [95]. Environment is a critical factor which affects entrepreneurship [96]. Environment is recognized as a factor which includes number of resources impact individuals to start a business [97], [98]. Environment impacts in planning and building a business for individual [99], [100]. Social factors, infrastructure development, political factors, market and economy factors are recognized as five factors of environment. Among these factors infrastructure development recognized as a key factor which impacts EI of individual in a higher rate and the reason is, infrastructure development includes education system of the country. It concludes that environment has an impact for individual intention toward being an entrepreneur [101].

Research study conducted in Malaysia, among the business students to study the factors affecting EI identifies environmental factors as economic and social variables of a country. The research study resulted that there is no reason to justify environmental factors impact on EI of individuals. Study concludes that environment does not show an impact toward EI of individuals [48].

Research study conducted among university students of Germany to investigate the factors which affect EI identifies environment as the assessment done by a student regarding the cost students need to bear and the expected benefits they gain through a career by choosing entrepreneurship. The study resulted, environment factor impacts to EI of students studying in MIT. Both micro environment and macro environment show an impact on student starting up their own business [92].

I. Innovativeness vs EI of undergraduates

Innovation of an entrepreneurship business is regarding conducting and acting a business product and business process in a unique system [102]. Innovativeness is considered as the most essential characteristics of an entrepreneur [103]. Characteristics as innovativeness of an individual will indirectly influence the EI [104]. Self-efficiency is identified as the mediator in between innovativeness of individuals and EI of individuals. This mediator self-efficacy is identified as a direct factor in affecting EI of individuals [105]. Innovativeness is a characteristic which is an essential factor for entrepreneurship [106].

J. Economic Traits, Age, Family income level, Ethnicity, Nationality and Perceived behavioral control vs EI of undergraduates

Entrepreneurship is recognized as an essential factor for the growth of economy of a country as resulted in various research studies [107]. Economic system processed in a traditional system focused mainly on the price factors of an economy and refusing to consider innovations but entrepreneurship develops economy with innovative products [108].

Research study resulted that people who are older in age can invest less amount of time for a new business venture than the young population [109]. Family income level of individuals does not show an impact toward the EI of individuals according to a study done among Chinese students. According the students in United States it resulted that students who are coming from higher income level families do not show positive impact toward EI but students from lower income level families show a positive impact toward EI to reach success taking risks [110].

Ethnicity is defined as a factor to categorize the population of a country [111].In ethnic groups they share common culture and origins [112]. The initial entrepreneurship opportunity generates within the ethnic community and it grows in the same ethnic community initially [113]. Ethnic entrepreneurs have an advantage that a strong consumer base is built in the ethnic community. This advantage will increase the EI of ethnical entrepreneurs [114].Nationality of entrepreneurs will impact for the innovativeness of individuals because different nationalities come with different norms according to the country which they are born and it will affect performance of the business [115].

III. METHODOLOGY

To identify the factors effecting EI of graduates seven researches are selected from various countries across the world representing Asian countries and non Asian countries. The selected researches are “Investigating entrepreneurial intention among public sector university students of Pakistan” [59], “Entrepreneurial interest of university students in Singapore” [44], “Determinants of Students’ Entrepreneurial Career Intentions: Evidence from Business Graduates” [42], “Which factors affect entrepreneurial intention of university students?” [41]. “The ’making’ of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT” [92], “Entrepreneurship Intention Among Malaysian Business Students, Entrepreneurial Intentions of Business Students: A Benchmarking Study” [36] and “Entrepreneurship Intention Among Malaysian Business Students” [48].

Variables are identified from studies’ research hypothesis, research objectives, research questions,
conceptual frame work and research analysis. A variable is categorized as a major factor of the study mention it in research hypothesis or research objectives or research questions or conceptual frame work. A variable is defined as a minor factor if it is only discussed in analysis section. If a variable is classified into sub categories, the relevant classifications are mentioned as sub variables.

From analysis section the impact is verified. In impact section it is recorded as “Yes” if there is an association among EI of graduates and the relevant factor and “No” if there is no association. Furthermore the nature the impact is examined if there is an association among the relevant variable and EI of graduates to verify whether it is positive, negative or not mentioned.

If more than one research discuss about a single factor. Then the decision about impact “yes” or “No” is decided by calculating the percentage. If it is more than 50% for “Yes” then it is considered as an association. Otherwise it is considered as no association. Even for the nature of the impact same method is used that more than 50% should be there for negative impact or positive impact to categorize the nature of impact. Otherwise the nature of impact is justified to be not mentioned.

IV. ANALYSIS AND DISCUSSION

A. Personality Traits

TABLE I. TABLE OF ANALYSIS FOR PERSONALITY TRAITS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sub Variables</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[48]</td>
<td>No</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td>[92]</td>
<td>Risk taking propensity</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Internal locus of control</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td>[36]</td>
<td>Risk taking propensity</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Internal locus of control</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Need for independence</td>
<td>Major</td>
<td>No</td>
<td>-</td>
</tr>
</tbody>
</table>

Out of the seven articles, three discuss about personality Traits. Two researches separate the personality traits into sub variables. Lüthje, C. and Franke, N [92] separate personality traits into risk taking propensity and Internal locus of control in their study “The ‘making’ of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT”. And they also separate personality traits into 3 sub variables in the research “Entrepreneurial Intentions of Business Students: A Benchmarking Study” [36]. Risk taking propensity, internal locus and Need for independence. In those two researches, risk taking propensity and internal locus of control are mentioned to be major factors and the results are positively impacting to entrepreneur intention. But Need for independence is mentioned in only in the research “Entrepreneurial Intentions of Business Students: A Benchmarking Study” and not impacting on EI.

All three researches are mentioning personality trait as a major factor with positive influence to EI unless the sub variable need for independence. Hence the personality traits is affecting on EI.

It is better to separate personal traits into sub variables Risk taking propensity and internal locus for future studies. As those variables are having a strong positive influence with EI.

B. Environmental Factors

TABLE II. TABLE STYLES OF ANALYSIS FOR ENVIRONMENTAL FACTORS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sub Variables</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market environment</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
<td></td>
</tr>
<tr>
<td>Financing environment</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
<td></td>
</tr>
<tr>
<td>Society</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
<td></td>
</tr>
<tr>
<td>University environment</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
<td></td>
</tr>
</tbody>
</table>

Franke, N. and Lüthje, C [36] have divided Environmental Factors into four major sub variables. Market environment, financing environment, society and university environment are the sub variables. All the sub variables impact on EI but the impact is not mentioned.

The entire sub variables affect on EI of students’ and hence overall environmental factors affect on EI of graduates. To study about the environmental factors it is meaningful to divide the factor into market environment, financing environment, society and university environment.

C. Economic Traits

TABLE III. TABLE OF ANALYSIS FOR ECONOMIC TRAITS

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[48]</td>
<td>Major</td>
<td>No</td>
<td>-</td>
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</tbody>
</table>

Zain, Z.M., Akram, A.M. and Ghani, E.K [48] have mentioned about economical traits in their research article. But they have proved the economical traits are not effecting to EI of university students.
D. Family influence

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[48]</td>
<td>Minor</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>[42]</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td>[44]</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>[41]</td>
<td>Major</td>
<td>No</td>
<td>-</td>
</tr>
</tbody>
</table>

Out of seven studies selected four studies are discussing about Family influence. “El Among Malaysian Business Students” [48], “Determinants of Students’ Entrepreneurial Career Intentions: Evidence from Business Graduates” [42], “Entrepreneurial interest of university students in Singapore” [44] and “Which factors affect entrepreneurial intention of university students?” [41] discuss about family influence factor.

Out of four factors mentioned about family influence three are stating there is a relationship among EI and family influence but they are not mentioning about whether the impact is positive or negative. “El among Malaysian Business Students”, “Determinants of Students’ Entrepreneurial Career Intentions: Evidence from Business Graduates” and “Entrepreneurial interest of university students in Singapore” are the researches which discuss about the association.

“Which factors affect entrepreneurial intention of university students?” States there is no association among family influence to EI of graduates.

The association percentage of the factor family influence to EI is 75% according to the above studies. 66.6% of the studies which prove there is an affect of Family influence as a major factor.

Family influence impacts on EI of graduates based on the results.

E. Academic persons’ influence

<table>
<thead>
<tr>
<th>Source</th>
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<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[48]</td>
<td>Minor</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>

EI among Malaysian Business Students [48] identifies Academic persons’ influence as a minor factor and from analysis and it is proved to be associating with EI of graduates. But the nature of the association is not defined.

F. Friends’ influence

<table>
<thead>
<tr>
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<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[48]</td>
<td>Minor</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>

Friends’ influence is discussed by Zain, Z.M., Akram, A.M. and Ghani, E.K [48] in their study as a minor factor. According to their findings it is proved that it has an association with EI. But the nature of the association is not defined.

G. Entrepreneurs’ Influence

<table>
<thead>
<tr>
<th>Source</th>
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<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[48]</td>
<td>Minor</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>

Zain, Z.M., Akram, A.M. and Ghani, E.K [48] define entrepreneurs’ intention as a minor factor and further in their study it is proved to be having association with EI of graduates. The association is not defined whether it is positive or negative.

H. Perceived barriers

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2]</td>
<td>Minor</td>
<td>Yes</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Lüthje, C. and Franke, N [92] identify perceived barriers as a minor variable. And from their findings it is justified to be having association with EI of graduates and the impact is a negative one.

I. Perceived support

<table>
<thead>
<tr>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>[92]</td>
<td>NO</td>
<td>Minor</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td>[41]</td>
<td>University Support(educational support)</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>structural support(support of Private/Government sectors)</td>
<td>Major</td>
<td>Yes</td>
<td>Low positive</td>
</tr>
</tbody>
</table>
Two studies discuss about perceived support. Lüthje, C. and Franke, N [92] in their research identify perceived support as a minor variable and from analysis they prove that Perceived support is positively associating with EI of graduates.

Turker, D. and Selcuk, S.S [41] classify Perceived support into two sub variables. University Support (educational support) is having a positive impact on EI of graduates according to the findings. And structural support (support of Private/Government sectors) has a low positive impact on EI of graduates. Both university support and structural support are defined as major factors.

Perceived support can be further sub divided to university support and structural support to discuss about the association with EI. Considering all the facts perceived support has a positive impact on EI of graduates.

J. Innovativeness

TABLE X. TABLE OF ANALYSIS FOR INNOVATIVENESS

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[42]</td>
<td>Major</td>
<td>Yes</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Innovativeness is identified as a Major variable by Ahmed, I., Nawaz, M.M., Ahmad, Z., Shaukat, M.Z., Usman, A., Rehman, W.U. and Ahmed, N [42] in their study. From analysis it is proved that innovativeness is having a positive relationship with EI of graduates.

K. Age

TABLE XI. TABLE OF ANALYSIS FOR AGE

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[41]</td>
<td>Minor</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>[59]</td>
<td>Minor</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>


Out of two articles only one justifies the impact of age on EI of graduates. Hence the effect of age is not a significant factor impacts on EI of graduates as there is no significant evidences to justify.

L. Gender difference

TABLE XII. TABLE OF ANALYSIS FOR GENDER DIFFERENCE

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[42]</td>
<td>Major</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>[59]</td>
<td>Minor</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>[44]</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>

Ahmed, I., Nawaz, M.M., Ahmad, Z., Shaukat, M.Z., Usman, A., Rehman, W.U. and Ahmed, N [42] prove gender difference is having no relationship with EI of graduates and the variable is defined as a major variable.

Shah, N. and Soomro, B.A [59] and Wang, C.K. and Wong, P.K [44] in their studies have proved that gender difference associates with EI of graduates. But the type of association is not derived. Investigating EI among public sector university students of Pakistan identifies gender difference as a minor variable while entrepreneurship interest of university students in Singapore identifies gender difference as a major variable.

66.6% of the researches mentioned about Gender difference prove its association with EI.

M. Level of education

TABLE XIII. TABLE OF ANALYSIS FOR LEVEL OF EDUCATION

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[42]</td>
<td>Minor</td>
<td>Yes</td>
<td>Positive</td>
</tr>
<tr>
<td>[44]</td>
<td>Major</td>
<td>Yes</td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>

Two researches discuss about the factor level of education. Ahmed, I., Nawaz, M.M., Ahmad, Z., Shaukat, M.Z., Usman, A., Rehman, W.U. and Ahmed, N., [42] identify Level of education as a minor variable. From analysis authors verify that the relationship exists between level of education and entrepreneurship. The relationship is proved as a positive one.

Wang, C.K. and Wong, P.K [44] have identified level of education as a major variable and proves that there is an association between Level of education and entrepreneurship. But the nature of the impact is not mentioned.

All the researchers have identified level of education impacts on EI of graduates but the nature of impact is not significant enough to say positive.

N. Entrepreneurial education

TABLE XIV. TABLE OF ANALYSIS FOR ENTREPRENEURIAL EDUCATION

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Affect on EI?</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>[42]</td>
<td>Major</td>
<td>NO</td>
<td>-</td>
</tr>
</tbody>
</table>
Ahmed, I., Nawaz, M.M., Ahmad, Z., Shaukat, M.Z., Usman, A., Rehman, W.U. and Ahmed, N [42] have selected entrepreneurship education as a major variable. And from analysis it is proved that there is no association among EI and Entrepreneurial education.

O. Prior Business Experience

Prior Business experience is selected as a minor variable by Ahmed, I., Nawaz, M.M., Ahmad, Z., Shaukat, M.Z., Usman, A., Rehman, W.U. and Ahmed, N [42]. From analysis it is proved to be having a positive association to EI of graduates.

P. Family income level

Wang, C.K. and Wong, P.K [44] discuss about family income level in their study as major variable. According to the analysis there is no association among family income and EI.

Q. Ethnicity

Only one research out of seven researches discuss about Ethnicity. Wang, C.K. and Wong, P.K., [44] identifies Ethnicity as a major variable but from analysis it is proved to be no association between ethnicity and EI.

R. Nationality

Wang, C.K. and Wong, P.K [44] select nationality as a major variable to investigate whether it associates to EI of graduates. And there is no association among Nationality and EI according to the findings.

S. Attitude toward behavior

Shah, N. and Soomro, B.A [59] have selected attitude toward behavior as a major variable. There is a positive impact from Attitude towards behavior to EI of graduates’ according to the analysis.

T. Subjective norms

Shah, N. and Soomro, B.A [59] discuss the impact of subjective norms to EI of graduates. They select Subjective norms as a major variable. Subjective norms positively impact to EI of graduates according to the findings.

U. Perceived behavioral control

Perceived behavioral control is identified as a major factor by Shah, N. and Soomro, B.A. [59]. But there is no impact from perceived behavioral control to EI of graduates.
V. CONCLUSION

Seven research articles discussed about graduates' EI, are selected to study about factors affecting EI of undergraduates.

According to the analysis some factors positively affects on EI of undergraduates and some affects negatively to EI of undergraduates. Also there are some factors which affect EI of undergraduates but the nature of the impact is not defined. The rest of the variables do not affect EI of undergraduates.

Personality traits, perceived support, innovativeness, prior business experience, attitude towards behavior and subjective norms affect on EI of undergraduates positively. These variables increase the intention of undergraduates to become entrepreneurs.

Perceived barrier is the only factor identified which affects negatively on EI of undergraduates. Perceived barrier declines the intention of undergraduates to become entrepreneurs.

Family influence, environmental factors, academic persons’ influence, friends’ influence, entrepreneurs' Influence, Gender difference and Level of education affects on EI of undergraduates but the nature of the impact is not studied.

Economic traits, age, entrepreneurial education, family income level, ethnicity, nationality and perceived behavioral control do not affect on EI of undergraduates.

VI. FUTURE WORK

Some variables are identified to have an impact on EI of undergraduates but the nature of the impact is unknown. Hence further researches should be conducted to find out whether those variables increase the intention of undergraduates to become entrepreneurs or decrease the intention of undergraduates to become Entrepreneurs.

REFERENCES


Entrepreneurial Behaviour and Research, Vol. 16 No. 1, pp. 35-57


