The Entrepreneurial Intention of Algerian Women (a Sample Study of Skikda University Female Students)

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ABSTRACT

Entrepreneurship is currently occupying a significant space due to its positive effects on the economic and social levels and its consideration as an important source of wealth, creativity, and job opportunities. Moreover, given that both the public and private sectors cannot absorb the huge numbers of university graduates in terms of employment, especially girls in developing countries, this group must be directed towards self-employment. Governments, on their part, must enhance the entrepreneurial intent of students through universities. The main purpose of this paper is to measure the level of entrepreneurial intention among Algerian women by investigating the importance and impact of the most important factors affecting entrepreneurial intention (according to the majority of previous empirical studies) in motivating Algerian female students to create their own business. The primary data are collected through a self-prepared questionnaire to assess the role of explanatory factors such as attitude to entrepreneurship, parental influence, self-efficacy, entrepreneurial education and governmental support with “entrepreneurial intentions”. 254 female students from SKIKDA University have participated in the survey. The data are analyzed using SPSS program. The results have shown that female students who are about to graduate have a considerable

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(high) intention to start an entrepreneurship project. The entrepreneurial intent among female students are strongly affected by parental and governmental support and the rest of the factors come to a lesser degree (acceptable) of influence (Self-efficacy, entrepreneurial education and attitude to entrepreneurship).

**KEY WORDS:** Algeria, entrepreneurial intention, girl student, university, women

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**Introduction**

Over the past decade, entrepreneurship has emerged as one of the most important forces in the global economy, business and management studies (Messikh, 2018). As one of the important types of entrepreneurship, we find female entrepreneurship, which is considered a fundamental factor in the creation, operation and the growth of businesses and hence in the socio-economic growth. The author Brush confirms this in his statement: "Women-owned businesses are among the fastest growing entrepreneurial populations in the world" (Brush et al, 2006).

Female entrepreneurship has evolved since the early of the 1990s. This goes back originally to the essential role that women entrepreneurs play in contributing to socio-economic development, country’s prosperity and to the global market in general (Achakpa and Radović-Marković, 2018). In addition to that, the most significant sentence of Winn "Women are changing the face of modern business," sums up this new perception of the current place of female in the development of entrepreneurship (Winn, 2005).

Women entrepreneurs are increasingly taking an important part in the economic world. When it comes to engagement in entrepreneurial activities, men constitute 52% while women 48% of all entrepreneurial activities (Bouguerra, 2015). OECD shows that women constitute, depending on the country, within 27% of business creators. For the year 2020, Chile has the highest percentage of women entrepreneurs among the OECD countries, with 32.4 percent of females having started their own business (OECD, 2020).

In the light of the transformation of the Algerian economy from a directed economy to a free one and the global economic openness, the wheel of establishing private institutions moved, as entrepreneurship became an effective solution to the problem of unemployment (Badraoui and Kaddouri,
The change that the socio-economic and educative development has played in changing social attitudes towards women's work has greatly contributed to the strengthening of women's entrepreneurship in Algeria (Boufeldja, 2014).

Regarding the graduation of university students, the statistics indicate that Algerian university women are the most affected by unemployment with 21.8% for women against 9.9% for men (Hammouda and Medjoub, 2014). On another note, data from the GEM Algeria survey show that the entrepreneurial activity (EA) is still dominated by men, even if the women have recorded a significant increase in the recent years. The national average female EA rate is 5.7, compared to the male rate of around 12.3 (GEM, 2011).

In this context, female entrepreneurship is a new phenomenon in the Algerian society that needs to be encouraged (Boufeldja, 2018), and it is one of the most prominent types of entrepreneurship that the government seeks to develop by encouraging entrepreneurial orientation of women in general and female university graduates, in particular. Development strategies adopted by the government today is a part of a logic of economic diversification. The political orientations take into account the need to increase the number of real programs aimed at promoting female entrepreneurship (Metaiche and Bendiabdellah, 2016).

Indeed, compared to those in other countries, female entrepreneurship in Algeria remains an epiphenomenon. In Morocco and Tunisia, for example, this phenomenon seems to have undergone a much more favorable development than in Algeria and that only explains the advanced stage of its development in these neighboring countries.

Aim of the study: the objective of this study is to know the entrepreneurial intent level of our university female students in light of discouraging and negative societal ideas prevailing Algeria about women’s establishment and management of the private enterprise. Moreover, this study aims to identify the most prominent motivational factors that can support women students in Algeria to become entrepreneurs.

Research questions: the major question of this research work revolves around what is the reality and the level of the entrepreneurial intention among university women students about to graduate in SKIKDA (Algeria), and which factors can motivate the entrepreneurial intentions in this community?
Literature Review

Entrepreneurial Intention

Much of entrepreneurial activities are an intentionally planned behavior considering that the entrepreneurial intention is the main indicator of the subsequent entrepreneurial behavior, in addition to being one of the basic conditions for an individual to establish an entrepreneurial project. Many academic studies have highlighted that most entrepreneurial institutions always proceed from the entrepreneurial intention to start on a personal work by trying to embody creative ideas in a project form (Davidson et al, 2003). Ajzen (1991) defines intent as an indication of willingness to try and effort indicating willingness to agree to act in a certain way. However, if individuals find themselves in encouraging positions for some behaviors, this does not mean that pre-intentions are the main determinant of their behavior, but their desire to engage in the behavior is the main determinant (Ajzen, 2011). Entrepreneurial intention represents the first step in the entrepreneurship process and this intention is the main pre-determining factor for the performance of entrepreneurial behavior (Henri, 2005). It is also defined as the totality of the motivating factors that affect individuals to pursue entrepreneurial results for launching a project (Hisrich et al, 2010). Bird also defines it as the state of mind that directs people towards developing and implementing new business concepts (Hattab, 2014). It is the conscious state of mind that directs personal interest, experience and individual behavior towards planned entrepreneurial behavior (Martin et al, 2010).

Female Entrepreneurship

The participation of women in the labor market has received a special attention at the global level. Its share in the percentage of owners of entrepreneurial enterprises is clearly increasing, and in this framework, researchers see that the definition of women entrepreneurship is not different from the concept of entrepreneurship for a man. In this regard, Adrian and her research colleagues defined women entrepreneur as: “a person who takes financial risks in order to start up or acquire a business, and who directs it in an innovative and creative way by developing new products and conquering new markets” (Adrian et al, 1999). With regard to the status of women's entrepreneurship in Algeria, the percentage is still
very weak. As shown in the report of MasterCard Female Entrepreneurship Index (MIWE) 2019, the presence of women entrepreneurs at the national level is estimated at 7.3%, which is one of the lowest rates of the Algerian total companies that are owned by women in the world (MasterCard, 2019).

The ILO report (2017) presents the most prominent challenges facing women entrepreneurship in Algeria, which were represented in the lack of actual support for projects (in terms of specialized advice in marketing, law, finance and tax, in addition to the lack of training as well as the absence of support from the family in some areas). Furthermore, the cultural environment and the role of women in Algerian society along with the constraints related to reconciling work, family responsibilities and stress of traditional society all impede the development of women's activity. In addition to the difficulty of accessing information and markets, there is the difficulty of obtaining land and industrial real estate as well as the difficulty of access to funding.

**Entrepreneurial Intentions among University Students**

Many studies that have examined the intention of entrepreneurship among students show that the levels of this latter vary from one country to another. Lim and Pathak (2006) studies point out that entrepreneurial intentions of students in the US, Korea, and China were at varying levels. Luthje and Franke's (2003) study at MIT reveals that only 3.4% of engineering students were currently self-employed during their studies and 54.6% of the students had intentions to be self-employed after graduation. Fatoki (2010) also finds that entrepreneurial intentions of final year students in a South Africa University were weak (Chuks and Chishuvo, 2015). As observed in the previous studies, the obtained results in a specific country cannot be used as a premise for estimating the state of entrepreneurial intentions in other countries. This is due to environmental nuances, which may be of a social, political or cultural nature amongst others.

The individual chooses the entrepreneurial career path due to his positive outlook and desire for entrepreneurship, his expectations on exploiting opportunities, and some other individual tendencies towards this work (Dave, 2015). The following factors represent the most important influences on the intention to initiate entrepreneurial work, according to the majority of previous studies:

1. Attitude towards entrepreneurial work: it plays an effective role in shaping the students’ intention towards entrepreneurship. This
view is supported by a study on a sample of students at the Higher School of Commerce in Sfax: the individual's behavioral attitudes towards entrepreneurship are of great importance in the student's orientation at graduation towards the entrepreneurial field (Boudabbous, 2011).

2. Influence of parents and relatives: social pressure (paternal support) exerted on the individual pushes him to adopt a certain behavior. This view is supported by Kolvereid (1997) study of a group of Norwegian students, it shows that entrepreneurial intent is highly correlated with social norms and the influence of friends and family (Tounés et al, 2014).

3. Self-Efficacy: it refers to the subjective beliefs that people have a special ability to perform a particular task and then it reflects the individual's confidence in his thinking about his ability to achieve a particular behavior (Warren et al, 2013). Zaidatol (2009) study, through a sample of 1554 students in Malaysia, demonstrates that the student's perception of his entrepreneurial self-efficacy significantly affects his career orientation.

4. The extent to which the university student is exposed to studying topics related to entrepreneurship: the studies have shown that students studying topics related to the establishment of small and medium enterprises or entrepreneurial projects have better intention and entrepreneurial orientation than others. Through a study on a selected group of students who followed five distinct programs in three Colombian universities, Varela and Jimenez prove that the highest results extracted regarding indicators of entrepreneurial intention and entrepreneurial career orientation are at the universities that invested in training and entrepreneurial support and offered and taught leadership programs business for students (Alain et al, 2015). Vasiliadis and Poullos study also shows that entrepreneurial education creates a positive outlook for individuals and even entrepreneurs, in addition to its contribution with the idea that entrepreneurship can be a good alternative career option for university graduates (Verni et al, 2015).

5. Government support: which plays a huge role in creating intention towards entrepreneurial businesses. (Israr and Saleem, 2018) assume that governmental support in this field may be in a support form of new business start-ups or more business growth for existing projects. This is realized by providing financial support
schemes and incubation workspace, with entrepreneurship education schemes, in addition to subsidizing enterprise advice and training (Malebana, 2014). In this regard, Henley (2005) spells out in his study that potential entrepreneurs without entrepreneurial support will not be able to translate their intentions into new ventures.

**Research Methodology**

The study seeks to measure the level of entrepreneurial intention among Algerian women by investigating the importance and the impact of the most important factors affecting entrepreneurial intention. Moreover, it examines the hypothetical relationships between entrepreneurial intentions and the factors of attitude to Entrepreneurship, Parental support, Self-efficacy, Entrepreneurial education, Government support.

The population of this study represents the female students at SKIKDA University who are about to graduate from all scientific and social faculties. The requests were randomly selected to ensure that each unit in the community has an equal opportunity to be selected as a sample for this study. Data for this study are collected using a self-administered questionnaire. The questionnaire, which contains 23 questions (the three questions on personal information: age, Specialization, and university year are not counted in), is divided into five sections. The first section contains three questions about attitude of the female student towards entrepreneurial work. The second section contains six questions about support of family, relatives and friends. The third section contains six questions about the extent to which the student knows about entrepreneurship through the university. The next section contains five questions, which included items of undergraduate women student self-efficacy. The final section includes three questions about other external factors such as governmental support.

A self-developed, randomly distributed questionnaire is utilized as the instrument of data collection and 254 of the returned questionnaires were considered as satisfactory and therefore analyzed in the study. The reliability of the analysis has been done using Cronbach’s alpha method to test the instrument for internal consistency. The test returned a result of 0.810, which was acceptable. This indicates that the questionnaire has a high degree of stability and thus reassures the researcher of its application to all the study sample.
The method of the Pearson correlation coefficient was used in order to verify the validity of the construction between the averages of the axes and the total mean of the tool as it shows that the value of Pearson's correlation coefficients is acceptable for the axes and the tool as a whole. The correlation coefficients are significant at the 5% level of significance, where the significance reaches $p \leq 0.05$.

The distribution of the respondents according to demographic variables shows an examined range of demographic characteristics commonly used in such studies among the 254 respondents received in this sample. On the issue of age, the sample was predominantly less than 25 years with 87.4%. It is followed by the category between 26 and 30 years, with a rate of 10%. For the age 31 -35 years, it is 1.6%. It remains only 0.8% for the respondents over 35 years old. This distribution can be explained simply by the fact that the majority of university students are young women. Given that the Algerian educational system requires entry to school for six years and that the total years of educational stages before university (primary, preparatory, secondary) is twelve years, so the age of entering the university is 18 years. By adding five years to it in order to obtain a master's degree, it will be twenty-three years in total. In terms of specialization range, it shows that the majority of the respondents were from human and social specialization (law and politics, humanities and sociology, literature and languages, management and economics) representing 62.6 %. Scientific disciplines (science and technology) come in the next rank with a percentage of 32.4%. This was due to the random distribution of the questionnaire. The respondents’ university year (graduation level) show that a large number (about 78.3%) are bachelor's, while only 21.7% are Master’s students. This was again due to random distribution of the questionnaire.

The study formulates six hypotheses that are tested. The hypotheses are based on knowing the entrepreneurial intent level of girls who are about to graduate by studying the most important influencing and motivating factors for this intention. In this section, the hypotheses are stated in the null form in which they are tested and the results thereof are presented.
**Test of Hypotheses**

$H_01$: *The university female student in SKIKDA does not have the intention of starting an entrepreneurial project upon graduation, but rather prefers to work for others.*

The outcome of the analysis as presented in the following table:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to Entrepreneurship</td>
<td>254</td>
<td>3,8671</td>
<td>0,50717</td>
<td>27,248</td>
<td>253</td>
<td>0,000</td>
</tr>
</tbody>
</table>

*Source: SPSS outputs*

We note from the table above, that the arithmetic mean of the sample answers regarding the extent to which the female student at SKIKDA University has the intention to create an entrepreneurial work amounted to 3,8671. We can also see a standard deviation of 0, 50717, and that the calculated ($T$) value (27,248) is statistically significant with a level of $p\leq0.05$ between the actual and theoretical averages. Thus, the null hypothesis is rejected and then the alternative hypothesis is accepted: there is a considerable intention among the female students from the university under study to start their own business and to establish a small business after graduation.

$H_02$: *The university female student is not affected by the social environment (Parental support) in order to move towards entrepreneurial work.*

The outcome of the analysis as presented in the following table:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Support</td>
<td>254</td>
<td>4,0276</td>
<td>0,60765</td>
<td>26,951</td>
<td>253</td>
<td>0,000</td>
</tr>
</tbody>
</table>

*Source: SPSS outputs*
As shown in the table above, the arithmetic mean of the sample’s answers regarding the extent to which the female student at SKIKDA University is affected by the social environment (parental support) to move towards the entrepreneurial work is 4.0276. We can also see a standard deviation of 0.60765 and that the calculated (T) value (26.951) has statistical significance at the level of p≤0.05 between the actual and theoretical averages. Thus, we reject the null hypothesis and we accept the alternative one, which says that the female students of the university under study are strongly affected by the social environment to move towards entrepreneurial work.

\( H_0^3: \) The university does not affect the creation of entrepreneurial intention among female student who are about to graduate.

The outcome of the analysis is presented in the following table:

<table>
<thead>
<tr>
<th>Test value</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>254</td>
<td>3.9469</td>
<td>0.67168</td>
<td>22.466</td>
<td>253</td>
<td>&lt;0.000</td>
</tr>
</tbody>
</table>

Source: SPSS outputs

The table above demonstrates the arithmetic mean of the sample’s answers regarding the impact of the university (SKIKDA) in the creation of the entrepreneurial intention of the female students is 3.9469. The standard deviation is 0.67168 and the calculated (T) value (22.466) has statistical significance at the level of p≤0.05 between the actual and theoretical averages. Thus, the null hypothesis is rejected and the alternative one that says: SKIKDA University affects the creation of the entrepreneurial intention of the women students at an acceptable level, is accepted.

\( H_0^4: \) Female university students do not feel the desire and ability to initiate and control their own (entrepreneurial) project (self-efficacy).

The outcome of the analysis as presented in the following table:
We note from the table above, the arithmetic mean of the sample’s answers regarding the extent to which the student feels the desire and ability to initiate and control an entrepreneurial activity (self-efficacy) amounted to 3.9669, with a standard deviation of 0.62580. The calculated (T) value (24,625) is significant. There is also a statistical level of $p \leq 0.05$ between the actual and theoretical averages. Thus, the null hypothesis is rejected and the alternative one confirming that the university female students at the university under study feel the desire and ability to start an entrepreneurial project and to control it at an acceptable level (self-efficacy).

$H_05$: The supporting factors provided by the state do not affect the creation of an entrepreneurial intention for female students to launch an entrepreneurial work.

The outcome of the analysis is presented in the following table:

Table 5: One sample t- test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>self-Efficacy</td>
<td>254</td>
<td>3.9669</td>
<td>0.62580</td>
<td>24.625</td>
<td>253</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: SPSS outputs

The table above shows that the arithmetic mean of the sample’s answers regarding the impact of the external supporting factors provided by the government in creation an entrepreneurial intention of the female student under study to launch an entrepreneurial work amounted to 4.0748. The standard deviation is 0.71135 and the calculated (T) value (24,080) is significant. There is a statistical level of $p \leq 0.05$ between the actual and theoretical averages. Thus, we reject the null hypothesis and we accept the alternative one confirming that the supporting factors provided by the state
strongly affect the creation of an entrepreneurial intention to female students to launch an entrepreneurial work.

\[ H_0.6: \text{There are no statistically significant differences about the entrepreneurial intention of university female students at the 5\% morale level, due to demographic variables.} \]

To test this hypothesis, the Mann-Whitney and Kruskal-Wallis tests were used. We considered that the distribution is abnormal, this was confirmed by the Kolmogorov-Smirnov test which shows that the value of the significance level for each section of the test results (axes) is less than 0.05 (Sig < 0.05). This note indicates that the data do not follow a normal distribution.

We used the Mann-Whitney test for the variables of specialization and level of study. Concerning the age variable, we used the Kruskal-Wallis test. Here, the hypothesis is rejected if the significance level is less than or equal to 0.05.

It is clear from Mann-Whitney test that there are no statistically significant differences (at the level of \( \alpha \leq 0.05 \)) in the entrepreneurial intention variable among university female students due to the variables of specialization, as well as the level of study. Therefore, this hypothesis is accepted with regard to the variables of specialization, and level of study.

It is clear from Kruskal-Wallis test that there are no statistically significant differences (at the level of \( \alpha \leq 0.05 \)) in the entrepreneurial intention variable among university women students due to the age variable. Thus, this hypothesis is accepted for the age variable.

**Discussion and Conclusion (Key Findings)**

In this study, it was found that the female students at the university of SKIKDA have a considerable intention (acceptable level) of starting a private individual work, which was confirmed by the direction of the students' answers "strongly agree", where the average was 3.8671.

The results indicate that the entrepreneurial education followed by the female student can affect her choice of the future profession, because it provides the student with great knowledge about this career and its effective role in promoting the major economies of the world. The study shows in this regard that the university of SKIKDA affects (at an acceptable level) the creation of entrepreneurial mindset of the women students under study, which is mainly evident through the arithmetic mean, which amounted to
3,9469 (strong approval). Therefore, this result goes hand in hand with the results of the study of Hattab (2014), Boudabbous (2011), and Bouguerra (2015).

Furthermore, the result of this study has shown that the impact of the paternal support variable for the female students in pushing them to think about establishing their own enterprises is positive. This was mainly confirmed by the answers of the sample, which tended to strongly agree, with an average of 4,0276, which can be explained by the fact of the presence of entrepreneurs in family members. The positive view they have of the entrepreneurial field drives them to try to direct their children towards these kinds of projects. They know that the Algerian government pays great attention to entrepreneurship through its establishment of accompanying agencies for entrepreneurial projects such as the National Agency for Entrepreneurship Support and Development and the National Fund for Financing Startups. This result joins the results of the study of Bouguerra (2015).

This study also shows the effective role played by the female student's self-efficacy in creating an entrepreneurial intention, which was demonstrated by the students' tendency to agree strongly with an average of 3,9669. The presence of the female student’s desire for self-realization and independence and the ability to control her project along with her knowledge of the reality of employment in the public and private sectors altogether push her to start her own project, especially in light of the concessions, and aid granted by the government in this field. Therefore, this result matches with the results of the study of Rome (2014).

The study confirms that the support granted by the government, with regard to the establishment of institutions represents a great impetus for the entrepreneurial orientation of the female students at SKIKDA university who are about to graduate. In addition to the fact that the external environment for entrepreneurial work is stimulating the creation of an entrepreneurial intention, which is confirmed by severe approval in the respondents' answers, where the arithmetic mean was estimated at 4,0748. The latter explains that the state tends to support female entrepreneurship and to involve them in the development process. Therefore, this result synchronizes with the results of the study of (Bouguerra, 2015), which considers that the lack of government support obstructed women in the process of business startup.
The findings show that there are no statistically significant differences about the entrepreneurial intention of the researched female students due to the variables (specialization, university level, and age) and this can be attributed to several reasons related to each variable. The absence of differences with regard to university specialization could be explained by the possibility of establishing enterprises in all fields of study. Also, we noticed the absence of statistically significant differences regarding the university level variable due to the presence of the graduation stage for the two levels (Bachelor and Master), and hence the students of the two levels who are about to graduate. In addition to this, the absence of differences with respect to the age variable can be traced back to the possibility of all age groups to establish private projects.

As a conclusion, all relevant parties should contribute to increasing interest in women's entrepreneurship in Algeria, especially the university category because it solves the problem of unemployment among this group, on one hand, and it achieves development goals on the other.

In this regard, the study recommends the necessity of increasing the entrepreneurial intent in Algerian university, considering that the entrepreneurial university, through its creative activities, paves the way for building a global economy based on knowledge and universities have become a natural incubator to revive the spirit of individual initiative. Nevertheless, the matter is not confined to entrepreneurial awareness only. It transcends it to financial and technical support. It is important to reconsider the activation of the Entrepreneurship Houses established at the level of Algerian universities.

Organizing seminars and conferences about entrepreneurship to advisory, financial and marketing support, accompanying the creation and development of projects could help female students to create their own business. Especially if it comes to the category of females who receive relative social and cultural discouragement and condemnation in Algeria regarding the establishment and management of the institution.

References


*Article history:*  Received: November 4th, 2021

Accepted: December 7th, 2021