The stimulation of the BTS Students Entrepreneurial Mindset through Entrepreneurial Education — Case of BTS students at the Lycée El Kindy in Casablanca, Morocco

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Abstract

Our study focuses on the effect of entrepreneurship education on the development of entrepreneurial Mindset among students in the Brevet Technician Specialize (BTS) at the Lycée El Kindy in the provincial directorate of Hay Hassani, Regional Academy of Education and Training of Casablanca -Settat (AREFC-S).

Our choice of BTS students comes from the fact that they are high school graduates who opt for a specialised higher education in fields related to business management, outside of academic institutions.

Our aim is to study the development of the entrepreneurial mindset through entrepreneurship education among these students. In order to do so, and after a diversified bibliographical study in relation to our subject, we opted for a field study by carrying out two surveys, spaced out by one year, on the same students.

- Our first survey is conducted in February 2022 on a sample of 50% of the total number of students in the first year of study at the BTS;
- Our second survey is carried out in February 2023 on the total number of these same students who are in their second year of study at the BTS.

The results of our surveys showed that the more students receive entrepreneurial training and participate in business-related seminars, the more entrepreneurial spirit among BTS students increases. This explains why students in the second year of study at the BTS have a higher intention to become entrepreneurs or business managers.

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1. Introduction

The crucial role of entrepreneurship in driving socio-economic development is universally acknowledged and constitutes a primary objective of governmental policies worldwide. Policymakers globally concur on the positive impact of entrepreneurship, recognizing its contribution to economic growth, wealth generation, unemployment mitigation, crisis resolution, and as a pivotal force for overall socio-economic advancement. This underscores the essential position occupied by entrepreneurs in the analyses of economists throughout history. Cantillon (1697) conceptualizes the entrepreneur as the driving force behind economic progress, while Weber (1864) asserts their paramount role in the universal history of the economy and society. Additionally, Schumpeter characterizes the entrepreneur as the economic agent who introduces innovation. Consequently, economists have identified entrepreneurship as a valuable phenomenon for comprehending development, and its significance is increasingly being emphasized in the realm of education to foster the establishment of enterprises.

The 1980s marked a period of significant growth for the field of entrepreneurship, as it became increasingly integrated into various disciplines. Not only did entrepreneurship research extend its reach to encompass a multitude of disciplines, but the number of institutions providing courses and activities related to the field also more than doubled within a decade, as documented by Vesper in 1985 and 1993.

This integration of entrepreneurship education across diverse disciplines and its subsequent expansion were driven by the objective of fostering an entrepreneurial mindset. In pursuit of this goal, nations pursued strategies involving diversification and widespread dissemination. Educational institutions were encouraged to develop training programs aimed at stimulating entrepreneurial spirit and cultivating entrepreneurial intentions among students and graduates.

From this standpoint, Morocco has been consistently exerting noteworthy efforts over the years to promote entrepreneurship. The country has implemented various actions and policies aimed at easing the establishment of enterprises and fostering the growth of the business sector. The Moroccan government has consistently taken several measures to promote entrepreneurship, establishing financing and training programs specifically designed to inspire young individuals to initiate and develop their own businesses. Hence the promotion of entrepreneurship has been put at the heart of the New Development Model\(^1\) which aims at liberalizing energies and restoring confidence to accelerate the march towards progress and prosperity for all.

Following the implementation of Law 01-00 in 2003, which marked the reform of higher education in Morocco, the public authorities introduced strategies and teaching policies aimed at training to stimulate the entrepreneurial spirit among students. The discipline of entrepreneurship education can be found in all higher education institutions under different names. The aim is to stimulate entrepreneurial intentions in young people, to awaken in them a desire for
entrepreneurship, and to make young people capable of overcoming challenges by developing an entrepreneurial and decision-making spirit instead of a wage-earning mindset.

Undoubtedly, entrepreneurship education provides students with the vital knowledge, skills, and motivation necessary to thrive in various entrepreneurial pursuits and environments. Nevertheless, some bachelor’s degree holders opt for specialized higher education in fields related to business management outside academic institutions.

Our focus is on the development of the entrepreneurial spirit among these students who are studying for the BTS diploma at the Lycée el Kendy in the provincial directorate of Hay Hassani, Regional Academy of Education and Training of Casablanca -Settat (AREFC-S), Morocco. The aim is to investigate how entrepreneurship education influences the cultivation of an entrepreneurial mindset among students in specialized education programs.

To achieve this, we will begin by addressing the hypothesis and methodology. Next, we will present the survey results, followed by the analysis and discussion of the findings in the third section.

2. Hypothesis and working methodology

2.1. Hypothesis

In recent decades, entrepreneurship has been given particular importance in countries’ higher education and public policy making. Policy-makers are seeking to encourage entrepreneurship by stimulating the entrepreneurial spirit and fostering entrepreneurial intent among students. To achieve this, these countries opt for the diversification, dissemination and encouragement of educational institutions to discern training in entrepreneurship, which is considered by Katz J.-A. (1990, p. 17), as "one of the most obvious forms of preparing individuals for entrepreneurship".

Morocco, as one of the emerging nations dedicated to advancing its economic foundation, aligns with this perspective that is progressively gaining significance among decision-makers in the education sector. These decision-makers place particular emphasis on fostering the development of entrepreneurship education to stimulate entrepreneurial intentions among students.

In two distinct studies conducted among students at the Hassan II University of Casablanca, Morocco (UH2C), as well as among female students at the same university, our research (Fatihi & al 2022) has demonstrated that entrepreneurship education effectively stimulates entrepreneurial intention among both male and female students in this academic institution.

Nevertheless, after obtaining the baccalaureate, access to higher education is diversified in Morocco. For this reason, our study targets the category of students who opted for specialized higher education in fields related to business management, outside of academic institutions. These students have chosen to follow their higher education at specialized high schools to prepare their Brevet de (BTS) in management and administration. Our choice to address the case of these students is based on the fact that they:
Follow their higher education studies in high schools that are not part of the higher education institutions governed by
the law 01-00 on the reform of higher education.

Follow their training in fields related to the business world in general and business management in particular.

Follow their studies with a reduced number of students per group (30 students per group)

Based on these elements, and given the quality of education in specialised high schools, we assume that entrepreneurial
education promotes the development of an entrepreneurial spirit among these students. To ensure our hypothesis, we
proceed by studying the case of BTS students at the Lycée EL Kendy in the Provincial Directorate of Hay Hassani,
AREFC-S, Morocco.

2.2. Working methodology

To pursue a scientific research grounded in real-world data, our initial approach involved an extensive and diverse
literature review. These encompassed topics such as entrepreneurship, entrepreneurial intention, and entrepreneurship
education. This step aimed to gain insights from global perspectives and draw inspiration from various experiences and
research endeavors in the field.

Following this comprehensive literature review, we proceeded to an exploratory phase through two qualitative surveys to
collect firsthand data. These surveys were conducted over two consecutive years using questionnaires hosted on Google
Drive. We rigorously tested and adjusted the questionnaires based on feedback received during testing, ultimately
validating them with input from expert university teachers in the field. This meticulous process ensured the collection of
reliable data, enabling us to derive scientifically sound results.

The first questionnaire is administered to students enrolled in the first year of the BTS at El Kendy High School in
February of the 2021/2022 academic year. After a year of study, and to raise the effect of entrepreneurial education on
the development of entrepreneurial spirit in these students, we sent them a questionnaire in February of the 2022/2023
school year.

2.2.1. Designing the questionnaires

In order to ensure the reliability and non-redundancy of the data, to receive a single response from each respondent, and
to ensure the objectivity of the analysis of the results, we first imposed the need for the email address of each respondent
before continuing with the questions. This allows us to collect real data that allows us to properly analyze the situation in
order to draw scientific conclusions.

Our survey is carried out in two stages, the first of which took place in February 2022, and is aimed at students in the first
year of the BTS at the above-mentioned high school. The second survey was carried out in February 2023 among the
same students who had passed their first year and were studying for the second year of the BTS specializing in
Economics and Accounting Management.

The two surveys were carried out by questionnaires including questions relating to the identity of the respondent as well
as his or her studies in entrepreneurship and his or her vision of the profession in the future, which will enable us to identify the scientific results.

The survey is structured into three main axes to comprehensively explore various aspects:

- The first axis, identity of the respondent: This axis encompasses five questions related to social parameters influencing the student's life, including gender, age, living environment, social class, and a fifth question concerning any affiliations with a family or circle of entrepreneurs.
- The second axis, educational background and training: The second axis is dedicated to the respondent's educational journey and any academic or non-academic training received in entrepreneurship during their years of study. It consists of 12 questions probing into the respondent's knowledge of entrepreneurship and entrepreneurial intentions acquired throughout their student life.
- Finally, the third axis, Student's Perspectives and Future Plans: The third axis focuses on the student's outlook and future aspirations. It involves five questions designed to infer the impact of training received and the respondent's involvement in seminars or clubs on their entrepreneurial spirit.

This three-axis structure ensures a comprehensive examination of the respondent's background, educational experiences, and future plans, providing a well-rounded understanding of the factors influencing entrepreneurial spirit.

The questions addressed to all of these students in the second year include twelve questions divided into two axes;

- The first axis includes six questions that aim to ensure that the student is part of our field of study.
- The second axis consists of 06 questions relating to the student's academic background and professional prospects. These questions allow us to draw conclusions about the evolution of entrepreneurial intention between the first and second year of study.

### 2.2.2. Sampling

To conduct our survey, we conducted our work throughout the academic year, 2021/2022 on a number of 28 students among 60 students preparing their BTS in the high school El Kindy, under the provincial direction Hay Hassani, AREFC-S. This sample represents approximately 50% of the total number of students in this branch specializing in Economics and Management or Accounting and Management is representative of our entire population.

For the second year, 2022/2023, we worked on all the students (60 students) who are studying in the second year of the BTS and who were in the first year of the 2021/2022 school year.

These students, both from the first year of the 2021/2022 school year and from the second year of the 2022/2023 school year, have some characteristics in common. They have the same speciality, study at the same level, belong to the same generation at the same school (Lycée EL Kindy) and the same age group (age less than or equal to 20 years) and they come from the same place of residence (urban).
The distribution of our first and second year students is based on gender, social class, and membership of a family or business environment.

### Table 1. The gender approach

<table>
<thead>
<tr>
<th>Gender</th>
<th>2021/2022 headcount</th>
<th>2022/2023 headcount</th>
<th>Gender</th>
<th>2021/2022 percentage</th>
<th>2022/2023 percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>12</td>
<td>23</td>
<td>Female</td>
<td>16</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>42.86%</td>
<td>38.33%</td>
<td>Female</td>
<td>57.14%</td>
<td>61.67%</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>60</td>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

*Source: Developed by the authors*

The number of female BTS students is higher than that of male students. The percentage of female students is 61.67% while that of male students is 38.33%. Our first year sample remains representative of both sexes in the same proportion.

### Table 2. Social class

<table>
<thead>
<tr>
<th>Social class</th>
<th>working class</th>
<th>2021/2022 percentage</th>
<th>2022/2023 percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5</td>
<td>41.67%</td>
<td>7</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>6.25%</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>21.43%</td>
<td>22</td>
</tr>
</tbody>
</table>

*Source: Developed by the authors*

The table shows that the majority of BTS students, 78.57%, come from middle-class families, while the minority, 21.43%, come from working-class families, and unlike the universities of Hassan II University in Casablanca, where the upper class is represented, no student from an upper-class family is enrolled in higher education at BTS.
Even with a difference between girls and boys, some BTS students, about 38%, belong to families where the father or mother is an entrepreneur. When close family members are introduced, this percentage increases to over 62%. The remaining 38% of students do not belong to entrepreneurial families or environments. This shows that the majority of students belong to the same social environment. However, we concluded above that the majority of students belong to middle class families, which shows that the entrepreneurial families of these students only own small or micro enterprises.

3. Results, Analysis and Research Perspectives

After an in-depth bibliographical study and the carrying out of our two surveys, we have set out above our hypothesis, our working approach and the data we have collected. In order to better define our subject, we will discuss the results of our survey in the following section, followed by an analysis that will allow us to draw conclusions and open up the subject with proposals for further research.

3.1. Results
The percentage of students who report that their institution organizes entrepreneurship and business creation seminars increases in the 2022/2023 academic year compared to the 2021/2022 year. This rate reaches 55% whereas it was 35% in the first year. At the same time, the rate of students who state that their institution does not organize seminars in this field decreases from 46% in the first year to 21.67% in the second year. But there is still a minority who do not know whether their institution organizes seminars related to entrepreneurship or not.

The number of female students who reported that the institution organizes seminars far exceeds that of male students. The rate varies from over 38% for female students to only 16% for male students. This shows that girls are more interested in entrepreneurship than boys.
The rate of BTS students who judged in February 2022 that starting a business is difficult or very difficult decreases in February 2023 and is replaced by an increase in the rate of students who judge starting a business to be easy. The latter rate increases from 17.86% in 2022 to 33.33% in 2023. It has taken the place of two other rates that have declined. This leads us to deduce that the higher the educational level of these students, the more they acquire the necessary tools that encourage them to create their own businesses.
The rate of BTS students opting for salaried employment or civil service is low in the first year and continues to fall in the second year, from 14% to 5%. On the other hand, the rate of students who plan to become entrepreneurs or company directors is high in the first year and continues to increase in the second year, especially for company directors, which rose from 21% to 38%.

When asked about the relationship between entrepreneurship education and the encouragement of business creation among BTS students, none of the students denied the effect of entrepreneurship education on the entrepreneurial spirit. The students felt that entrepreneurship training probably or surely encourages the creation of companies. The rate of students who are sure of this relationship has increased from 46.43% in the first year to 73.33% in 2022/2023. In contrast, the rate of those who believe in the likelihood of this relationship has more than halved from 53.57% in 2021/2022 to 26.67% the following year.

3.2. Analysis of the results

The results obtained show that a minority of students cannot judge whether their institution organizes seminars related to entrepreneurship. Nevertheless, the percentage of students who believe that their institution organizes seminars has increased at the expense of those who deny this. This shows that the institution undertakes efforts and organizes seminars, actions, conferences, etc., in order to stimulate the entrepreneurial spirit among these students. It is only after
one year of study that the majority of these students begin to become aware of the efforts made by those in charge of the training to raise their awareness of the field of entrepreneurship. This trend will be justified by conducting a survey after each year of study. Meanwhile, the relationship is justified in the first year.

This awareness is growing year by year and the stimulation of the entrepreneurial spirit is increasing among students. Indeed, after the first year, the number of students opting for salaried employment or civil service has decreased and is giving way to an increase in the number of students who plan to become entrepreneurs or business owners.

This trend towards starting a business or becoming a business manager is justified given that the rate of students who find starting a business easy has doubled in one year. This rate increased from 17.86% in 2021/2022 to 33.33% in 2022/2023. This rate is only about 16% among students of the Hassan II University of Casablanca. On the other hand, the rate of those who considered this creation to be difficult or very difficult fell between the two years, from 82.14% in our first survey to 66.67% in our second survey. However, it is lower than that of the UH2C students, which is around 84%.

These results show that the stimulation of the entrepreneurial spirit among these students developed between the first and second year in a more advantageous way than among the students of the UH2C. This development of the entrepreneurial spirit is also justified by the students' impression of the role of the training in encouraging entrepreneurship as well as by the students' future profession.

Indeed, although students are unanimous on the role of training in encouraging entrepreneurship, they only differ on the degree of this role, the percentage of students who feel that it is certain that entrepreneurship training encourages entrepreneurship has risen from 46.43% for 2021/2022 to 73.33% for 2022/2023. This increase in the rate of certainty has taken the place of the rate of those who feel that the relationship between training and entrepreneurship is likely. The rate of these students halved from 53.57% in the first year to 26.67% in the second year.

The development of an entrepreneurial spirit is more developed among these students than among UH2C students. The rate of students from university institutions who consider that the training encourages the creation of a business does not exceed 37%.

In the same vein, these students envisage becoming either entrepreneurs or company directors, a minority that has declined from 14% in the first year to 5% the following year. On the other hand, the rate of students aiming for the leader has increased from 86% to 95%.

3.3. Research perspectives

Following an examination of the influence of entrepreneurship education on entrepreneurial intention development among students at Hassan II University in Casablanca, Morocco, specifically focusing on female students at UH2C and BTS students, numerous research avenues emerge:

- Initially, a thorough examination is essential for each higher education institution to analyze the subjects, modules, and diverse para-academic activities associated with entrepreneurship education. The aim is to pinpoint specific programs
and training initiatives that are most effective in cultivating entrepreneurial spirit and fostering enthusiasm for business creation. This allows for the generalization of good practices and best practices in extracurricular activities for all institutions.

- Given the importance of this type of education on the entrepreneurial intention of students, and given that the majority of students declare that they have neither taken entrepreneurship courses nor participated in entrepreneurship-related seminars before obtaining their bachelor’s degree, it is of interest to study the impact of entrepreneurship education for high school, college and/or school students on the development of an entrepreneurial mindset among students. In this context, it would be valuable to explore the subjects covered, pedagogical approaches employed, and extracurricular activities conducted within the realm of entrepreneurship education. This exploration aims to deepen the understanding of the issue and, if needed, suggest alternative teaching methods, programs, and activities that may better address the objectives and challenges associated with fostering entrepreneurial spirit.

- Following the commencement of research with students, it becomes essential to explore how university professors, with their roles and experiences in the field, perceive the correlation between entrepreneurship education and the cultivation of entrepreneurial spirit. Additionally, it is crucial to investigate the methods and programs advocated by these educators to attain optimal results in students. Understanding the perspectives of university professors will provide valuable insights into the pedagogical approaches deemed most effective in fostering entrepreneurial development. This study can be extended to school leaders to identify efforts to prepare the enabling environment for students to invest in entrepreneurship.

- Ultimately, it is imperative to conduct a follow-up study after three or four years using the same sample to gauge the level of operationalization of entrepreneurial intention. This follow-up will enable the assessment of the connection between entrepreneurial intention and the actualization of personal projects. Monitoring the longitudinal development of these intentions over time provides valuable insights into the practical manifestation of entrepreneurial aspirations among individuals.

4. Conclusion

Based on the analysis of the results of our survey of BTS students at El Kindy high school in the provincial directorate of Hay Hassani, AREFC-S, we conclude that the development of the entrepreneurial spirit among these students has increased after only one year of study at the specialized high school.

Thus, the rate of students who declare that entrepreneurship training surely encourages the creation of a business, which was only 46.43% for 2021/2022, has undergone a rapid increase to 73.33% for 2022/2023. This increase, which is achieved in one year, clearly shows the efforts made by those responsible to stimulate the entrepreneurial spirit among BTS students.

In the same vein, in contrast to the insignificant rate of students opting for salaried employment and/or civil service (which does not exceed 5%), the rate of students planning to become entrepreneurs or company managers has increased to 95% for the year 2022/2023. Together with the rate of students who think that starting a business is easy, which has
increased in the second year, this shows that there is a stimulation of the entrepreneurial spirit among these students after the first year of study in high school.

The analysis of these results allows us to conclude that the entrepreneurship education given to students of the BTS specializing in Accounting and Management or Economics and Management have a very positive impact on the development of the entrepreneurial spirit of these students.

As a result, we recommend diversifying school or extracurricular activities associated with leadership in a broader sense. Furthermore, it is advisable to strengthen the incorporation of such teaching methodologies within both academic and non-academic institutions, with an emphasis on integrating these programs into pre-baccalaureate studies.

In addition, we offer supervision of the clubs, by teachers and by people from the socio-economic and educational world, in order to make them more attractive and effective, which encourages students to join them and participate actively in their various projects. This contributes to the stimulation of the entrepreneurial spirit and leadership among students.

Likewise, we advocate for the creation of student clubs and extracurricular activities centered around the business world in primary, secondary, and vocational schools. Introducing such initiatives at an early age can serve as an additional catalyst for instilling the aspiration for entrepreneurship and leadership in our children.

Moreover, fostering robust collaborations between university and non-university students, as well as pupils across various school levels through partnerships among educational institutions, facilitates the shared utilization of resources, skills, and facilities among teachers. This collaborative approach enhances the entrepreneurial spirit and promotes the creation of enterprises.

Footnotes

1 Report of the special commission on the development model of Morocco (April 2021)
2 Our survey of students at Hassan II University in Casablanca in February 2022
3 Idem

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