

## **The effectiveness of European upgrading programs at the level of Algerian SMEs**

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### **Abstract:**

This study aims at assessing the effectiveness of the upgrading programs that came within the framework of the European-Algerian partnership, as well as their contribution to raising the performance and improvement of the competitiveness and position of 30 Algerian small and medium-sized enterprises active in the industrial sector benefiting from European upgrading programs in the local and international markets. And that is by designing a questionnaire, distributing it to the those enterprises and analyzing the information obtained through the Statistical package for social sciences program SPSS, with the suggestion of a statistical model to reveal the factors most influencing the success or failure of the upgrading programs under study through the statistical program for modeling with structural equations, AMOS.

**Keywords:** European-upgrading programs, Euro-Algerian partnership, Algerian small and medium-sized enterprises, industrial sector.

### **Jel Classification Codes:**

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## **1. INTRODUCTION:**

The Euro-Mediterranean Partnership came to replace the European cooperation agreements concluded with the Mediterranean countries at the end of the 1960s, with a difference in content according to regional and international requirements in order to serve the interests of their owners. These have been translated at the bilateral level by agreements between the countries of the southeastern bank of the Mediterranean basin on the one hand, and the European Union on the other hand. Where the economic and financial aspects were mixed with the political, security, and sociocultural aspects, until it became the main pillars of this partnership.

In this context, and in the framework of the Euro-Algerian partnership, several programs have been launched towards small and medium-sized enterprises, including those related to support and upgrading of small and medium-sized industrial enterprises, with the purpose of increasing their performance and establishing a methodology for development and excellence in relation to its level within the framework of an agreed work methodology, And specific deadlines to be performed by experts from both banks, along with an evaluation program for the Various achievements.

This study stems from the importance acquired by the upgrading programs that came within the framework of the European-Algerian partnership during the period 2000-2014. As it has become one of the axes of the national strategy for the promotion and strengthening of the national productive tool, and improving the performance of enterprises to promote the industrial sector and its promotion in light of the intense and increasing international competition. Accordingly, it was necessary to identify the factors affecting these programs and how to maximize their benefits.

The study problematic is revealed through this research in the mechanism for determining the construction of a model through which the influencing factors and the degree of their impact on the success or failure of the European upgrading programs that the European Union brought to the Algerian SMEs, that is by asking the following main question : **What are the main factors affecting the failure or success of European upgrading programs at the level of Algerian small and medium-sized enterprises?**

To answer this problematic, this research paper was divided into two parts: the first represented in the European

upgrading programs for small and medium-sized enterprises in Algeria, while the second was to evaluate the effectiveness of the upgrading programs that came within the framework of the European-Algerian partnership.

## **2. EUROPEAN UPGRADING PROGRAMS FOR ALGERIAN SMALL AND MEDIUM-SIZED ENTERPRISES:**

Within the framework of the Euro-Algerian Partnership Agreement, the European Union worked, in negotiation with Algeria, to set up a special program that works to support and develop Algerian small and medium-sized enterprises, with the aim of upgrading them to a high level that could face the effects of establishing a free trade area from foreign competition and dismantling tariffs, and adapting to market requirements.<sup>(2)</sup> Algeria has adopted the Euro-Mediterranean upgrading program under the name Euro Development.

For small and medium-sized enterprises <sup>(3)</sup>. The latter was considered as the main program for upgrading small and

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<sup>2</sup> Anfal Nessib, Rehabilitation of small and medium enterprises under the euro- Algerian partnership agreement, Journal of Economic books, Zayan Ashour university, Djelfa, Volume 7, Number 1 p : 25.

<sup>3</sup> Ben Yacoub El-Taher, "The Effects of the Euro-Algerian Partnership Agreement on Small and Medium Enterprises," an intervention presented

medium enterprises. As a result of the development in the field of information and communication technology and the necessity to adopt electronic business in the activities of enterprises, the technological aspect of the enterprise has become a basic pillar from which to improve its competitiveness, and accordingly the upgrading programs have become more focused on the technological requirements of small and medium-sized enterprises. In this context, and at the request of Algeria, the European Union has proposed a special program for the upgrading of small and medium enterprises that works to integrate information and communication technology in the management of the latter. The European Program for Support of Information and Communication Technology in Algerian Small and Medium Enterprises was established (4).

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at the International Forum on the Effects and Implications of the Partnership Agreement on the Algerian Economy and the Small Medium Enterprises System, University of Farahat Abbas, University of Setif, on 13/14 November 2006, p. : 06-07.

<sup>4</sup> Siham Abdelkrim, The Policy for upgrading of Small and Medium Enterprises in Algeria with a Focus on the 2PME Program, Al-Baheth Magazine, Issue 9, University of Ouargla, Ouargla, 2011, p. : 143

### **2.1 Algerian Small and Medium-sized Enterprises:**

Based on the role they play in economic and social development, small and medium enterprises were able to prove their effectiveness, this is through expanding and diversifying industrial production and achieving development goals. This type of enterprises was the focus of attention of thinkers and economic researchers who unanimously agreed on the vitality of this sector, but they disagreed in giving a unified and accurate definition of it, as it differs from one country to another, organized to another according to its different, economic and social capabilities and conditions.

The Algerian legislator defined it in Law No. 02-17 of January 10, 2017, which includes the Directive Law for the Development of Small and Medium Enterprises in its Fifth Article (5), as, whatever its legal nature<sup>5</sup>, it is an enterprise that produces goods and / or services which employ from one to 250 workers, Its annual turnover does not exceed four billion Algerian Dinars, or its total annual turnover does not exceed one billion Algerian dinars. It must also fulfill the independence criterion<sup>7</sup>.

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<sup>5</sup> Law No. 02-17 of January 10, 2017 - of the Official Gazette of January 11, 2017, No. 2 Year 54, which repealed Law 01-18 of December 12, 2001 under Article 38.

### **2.1.1 Evolution of the small and medium enterprises population in Algeria:**

**Table N°1: Evolution of the number of national small and medium enterprises during the period (2015-2019)**

**Unit : Number of enterprises**

<b>Year</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>(%) Evolution</b>
<b>Number</b>	934 569	1 022 621	1 060 289	1 093 170	1 171 945	25,40

**Source :** Bulletins d'Information Statistique de la PME, Données des Années 2015-2016-2017-2018, 2019 Téléchargé sur : [www.mdi.gov.dz/Bultind- d- Information](http://www.mdi.gov.dz/Bultind- d- Information).

Through the above table, we notice that the number of national small and medium enterprises experienced a positive development estimated at 25.40%. Whereas, 1 171 945 small and medium enterprises were counted in 2018 compared to 934569 in 2015. This is due to the efforts made by the ministry in charge through the support and encouragement for this type of projects on the one hand, and the increase in the entrepreneurial sense for Algerians and their tendency to establish their own enterprises on the other hand.

### **2.1.2 Distribution of small and medium enterprises according to branches of economic activities**

The considerable increase in the demographics of small and medium enterprises pushes us to search for how to distribute them among various economic activities.

**Table N°2 Distribution of small and medium enterprises according to branches of economic activities**

**Unit : Number of enterprises**

Sectors	Privat enterprises	Public enterprises	Total	(%) Ratio
<b>Agriculture and Sea Fisheries</b>	7275	3572	10847	1,66
<b>Energy and mines</b>	3032	368	3400	0,56
<b>Construction and public works</b>	188275	2355	190630	20,52
<b>Industry</b>	102055	7672	109727	11,80
<b>Services</b>	602695	6988	609683	65,46
<b>Total</b>	910320	20 955	931275	100

Source : Bulletin D'information Statistique de la PME, Données de l'année 2019

Download on : [www.mdi.gov.dz/Bultind- d- Information](http://www.mdi.gov.dz/Bultind- d- Information).

The most important characteristic of Algerian small and medium enterprises is their concentration in the services sector, this is confirmed by the above table. Through it, we can notice that this sector occupied the largest percentage in terms of small and medium enterprises which were established during the year 2019, with a rate of 65.46%, followed by the public works and construction sector by 20.52%, then the industrial sector by 11.80% and The agriculture and fishing sector by 1.66%, which explains the reluctance of Algerian entrepreneurs to go to the agricultural sector and their preference for the service and construction



sectors and public works, which provide great opportunities for investment and considerable returns. Finally, we find the energy and mines sector at a rate of 0.56% as a result of the domination and monopolization of large enterprises and national complexes.

## **2.2 European upgrading programs:**

### **2.2.1 European Program for Small and Medium Enterprises Development:**

Within the framework of the Euro-Algerian Partnership Agreement, the European Union worked to set up a special program that works to support and develop Algerian small and medium enterprises, programmed over a period of five years, so that the program began its actual activity in October 2002, it was decided to terminate it in 2007. <sup>(6)</sup> With the possibility of extending it if the public authorities wanted that, <sup>(7)</sup> with a financing amount of € 62.9 million. So that the European Commission's share reached 57 One million euros, and 3.4 million euros, the share of the Algerian government's

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<sup>6</sup> Boubaker Mohamed, Evaluation of the Algerian Economic Institutions Qualification Program prepared by the Algerian Ministry of Industry and the European Commission for the Development of Small and Medium Enterprises, p .: 262.

<sup>7</sup> Accord D'Association entre l'Algérie et l'Union Européenne : (Ce que vous devez Savoir), Ministère de la PME et de L'Artisanat, Algérie, octobre, 2005, P : 32.

contribution. As for the remainder of the amount estimated at 2.5 million euros, it is the share of the contribution of the enterprises benefiting from the program<sup>(8)</sup>.

### **2.2.2 The European Program to Support Information and Communication Technology in Algerian PMEII:**

The second European program for the upgrading of small and medium enterprises (PME) II focused on the technological requirements, as a result of the development in the field of information and communication technology, and the need for enterprises to adopt e-business in its various activities.

The second European program came to help small and medium enterprises, and accompany them to intensify the use of information and communication technology, in addition to establishing a system of quality and measurement at the level of these enterprises<sup>(9)</sup>. A budget of 44 million euros has been allocated to it, with the European Union contributing 40 million euros, while the rest represents the share of the Algerian government's contribution of 3 million euros and the contribution of small and medium enterprises benefiting by 1 million euros.

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<sup>8</sup> Boubaker Mohammed, a previously mentioned reference, p. : 362.

<sup>9</sup> Anai Sassia, a previously mentioned reference, p. : 237

The duration of the program was set at 34 months, starting with its launch in May 2009 <sup>(10)</sup>. The agreement is based on the upgrading of 200 enterprises. (The program was signed in March 2008, but the actual launch was May 2009 <sup>(11)</sup>.)

### **3. EVALUATING THE EFFECTIVENESS OF THE UPGRADING PROGRAMS THAT CAME WITHIN THE FRAMEWORK OF THE EUROPEAN-ALGERIAN PARTNERSHIP :**

The total community size reached 120 small and medium enterprises spread over 48 states, 34 questionnaires were retrieved. And after reviewing the answers and sorting them, it became clear that there are four questionnaires that are not valid for the purposes of statistical analysis, as they were excluded due to either lack of information, or their conflicting answers in some cases. Thus, the number of questionnaires that have been adopted in the statistical analysis, which constitute the study sample, is 30 questionnaires, i.e. 25% of the total community size.

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<sup>10</sup> Ministry of SME Industry AND ICT Investment Promotion? Press Kit, Visibility Workshop, Algeria, February 24, 2010, P: 02.

<sup>11</sup> Report on EU-Algeria Cooperation.

### 3.1 View the survey content:

The questionnaire consisted of four parts, containing twenty-six (26) questions in their entirety:

**-Information related to the entreprise's progress.** This first part contains five questions (05) about knowing the elements and characteristics of the process most influencing the success or failure of upgrading programs, and studying the relationship of each element related to the process with the process.

**- Information related to the entreprise** The second part includes six (06) questions about knowing the internal elements and characteristics most influencing the success or failure of upgrading programs, and studying the relationship between them,

**- Information related to the business environment of enterprises.** The third part includes six (06) questions related to : the entreprise's ability to obtain financing, financing the assessment of tax policy efforts,

**- Information related to European upgrading programs:** This part contains eight (08) questions dealing with the following: European upgrading programs in which the entreprise is involved, stages of enrollment in European upgrading programs, upgrading processes for enterprises recommended by an expert in upgrading enterprises, upgrading processes for enterprises actually applied by the entreprise, the reasons that led to the mismatch of the recommended operations to the ones actually implemented within the framework of the upgrading of enterprises, the evaluation of the impact of the upgrading processes

implemented by the enterprise on its functions and the quality of its services and products, the evaluation of the impact of the upgrading processes implemented by the enterprise on its competitive position In the market.

### **3.2 Statistical results of the questionnaire:**

We have attempted to conduct a field study of the European upgrading programs that Algerian small and medium enterprises have benefited from and to identify the extent of their effectiveness and improvement in the performance of the enterprises benefiting from them, that by revealing the factors affecting the failure or success of it by proposing a standard model by applying the statistical model of structural equations, so that the European upgrading programs were the independent variable, and the dimensions: manager's characteristics, internal factors, external factors as dependent variables. We used the questionnaire as a study tool, so that its validity was tested and distributed to a sample of the study, which numbered 30.

By applying the T. STUDENT test, we obtained that there are statistically significant differences between the failure or success of upgrading programs and between interested and uninterested managers, as well as the gender of managers. By applying FICHER test, we conclude that there are no statistically significant differences between the success or failure of the

upgrading programs and between the formation and professional experience of the managers. Also, there are no statistically significant differences between the failure or success of the upgrading programs and the date of establishment of the enterprise, its capital and between its legal form and the number of its workers. As for applying the PERSON correlation coefficient, we conclude that there is a correlation between European upgrading programs and improving and enhancing the competitiveness of enterprises, raising their quality, the quality of enterprise management, improving the level of marketing of enterprises, ameliorating the performance of the financial function, accounting and production function, improving the performance of human resources, as well as upgrading their exports. In addition, the diagnosis and preparation of the upgrading plan and the formation of the human component contribute to the success of upgrading programs; accordingly, there is a link between the implementation stages of the upgrading programs and their success.

### **3.3 Modeling by structural equations:**

After analyzing the answers of the sample enterprises of the study obtained by using the statistical package for social studies program, we will try to extract the factors that led to

the failure and the success of the European programs for the upgrading of small and medium-sized industrial enterprises by building a standard model that shows us the effectiveness of these programs on the performance of enterprises through The Structural Equations Model, which is an extension of the Linear Model<sup>(12)</sup> .

Based on the information obtained when we dealt with the answers of the study sample enterprises, by using the AMOS statistical program, we obtained a standard model consisting of two parts, so that the first concerns the factors affecting the European upgrading programs, and the second belongs the performance of the enterprises of the study sample after benefiting from the same upgrading programs.

The structural validity of the scale has been confirmed through our use of the confirmatory factor analysis, which showed that the indicators of conformity quality indicate the validity of the assumption of the 21 statements represented by the various factors that really affect the upgrading programs that measure the structure consisting of three dimensions: manager's characteristics (interest of managers ), Internal factors (the enterprise's activity sector), external factors (ease

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<sup>12</sup> Ait Slimane Al-Qahwaji, Fariat Mohammed Abu Aouadin, "Modeling by Structural Equations Using Amos (An Applied Study)", Wail Publishing House, 2018, p.57.

of financing, tax policy applied to sample enterprises, bureaucracy, the enterprise's competitive position, quality of infrastructure, services of export promotion agencies), and conditions for implementing programs (diagnosis, preparation of a upgrading scheme, Training, the quality of the upgrading expert, and the financial aid) are interrelated among them

### **3.3.1 Factors affecting European upgrading programs:**

Through the results obtained in this model, it becomes clear that there are reasons that led to the failure of European programs and others to their success, which we will detail in the following:

The real reasons leading to the failure of upgrading programs are mainly due, according to the enterprises responding to the questionnaire, to the following :

- The lack of interest of managers in the upgrading process, which is considered one of the elements of the first dimension of the manager's characteristics, as it negatively affects the success of the programs under study by 24%.
- The tax policy applied to small and medium enterprises benefiting from European upgrading programs, which are considered one of the elements of the third dimension of external factors affecting 16%.



- The management problems that existed at the level of the sample enterprises when they benefited from the European upgrading programs affected 9%,
- The sector of activity in which small and medium-sized enterprises benefit from upgrading programs, which is one of the elements of the second dimension represented by internal factors that affect 7%,
- Bureaucracy and the prolonged period of file formation negatively affected the success of upgrading programs by 3%, as there are enterprises that recognized that this element obstructed the process of upgrading programs and because of it abandoned them, While the real reasons leading to the success of the upgrading programs, according to the enterprises responding to the questionnaire, appear as follows:
  - The comprehensive diagnosis of the enterprises benefiting from the upgrading process contributed to the success of European upgrading programs by 40%,
  - The upgrading expert contributed to the success of the upgrading process through European programs by 39%,
  - The process of preparing the upgrading scheme that includes the processes proposed by the upgrading expert to be applied to improve the performance of their functions and improve their competitiveness contributed to the success of the European upgrading programs by 35%,

- The training process proposed by the upgrading expert to improve the performance of its functions contributed to the success of the European upgrading programs by 29%,
- The competitive position enjoyed by the enterprises benefiting from these programs has a positive impact on their success by 12%.

### **3.3.2 The impact of European upgrading programs on improving the functions of the enterprises benefiting from them :**

When small and medium enterprises undertake European upgrading programs, their function performance improves, as we find that they have a positive impact on them by :

- When small and medium enterprises undertake European upgrading programs, their competitive position at the level of their activity has been improved by 35%,
- The introduction of management operations by sample enterprises led to an improvement in the performance of the management function by 30%,
- The sample enterprises 'undertaking operations related to production led to an improvement in the performance of their production function by 11%,
- The study sample enterprises undertaking operations related to finance and accounting led to a 10% improvement in the performance of the finance and accounting function,
- The study sample enterprises undertaking the processes related to raising the quality of goods and services provided

by them led to an improvement in the quality of these enterprises by 9%,

- That the study sample enterprises performed marketing operations, which led to an improvement in the performance of the marketing function then by 4%,

- The study sample enterprises undertaking operations related to raising the level of human resources led to an improvement in the performance of the human resources function by less than 1%,

-The study sample enterprises undertaking operations related to exporting their goods and acquiring new foreign markets led to an increase in their penetration of international markets by less than 1,%,

#### **4. CONCLUSION:**

In this study, we discussed the effectiveness of the upgrading programs that Algerian small and medium-sized industrial enterprises have benefited from within the framework of the Euro-Algerian partnership, their role in improving their performance. So that we built a standard model through which we summarized the most important reasons for the failure and success of the programs under study, to be the basic basis for every upgrading program that the enterprise seeks to maximize its benefit from. Finally, the following results were drawn up :

- The upgrading programs implemented by the Algerian authorities are very stimulating for Algerian small and medium upgrading in order to improve their competitiveness

and raise their efficiency, but despite this the results achieved at their level remain insignificant,

- The study sample upgrading affirmed that their European upgrading programs have enabled them to enhance their competitiveness and improve their competitiveness to varying degrees.

- European upgrading programs were distinguished in their support for the non-material side (diagnosis, training, upgrading...),

- The various sample enterprises that completed all stages of participation in European programs for upgrading have received positive results on the development of the enterprise's management, the quality of its products and its competitive position. This success will not remain uneven according to the strengths and weaknesses of each enterprise, and the opportunities and threats around each enterprise, in addition to the extent to which it performs all the required operations. By the upgrading expert, (the operations actually performed compared to the operations to be performed),

- The interviewed enterprises indicate the need for continued accompaniment and the extension of the upgrading manager in order to ensure the overall success of the programs, considering that the upgrading policy is a continuous and renewed process that seeks to improve the performance of enterprises over time,

- The absence of an official and accurate database and statistics on the results of upgrading programs and their development hinders all serious evaluation attempts, which

would assist the ministry in charge of developing and implementing the upgrading strategy,

-The presence of a high number of enterprises that abandon upgrading programs in their early stages, due to the length of the file formation period, or because of lack of communication with the upgrading news, or because the conditions for implementing the programs are inconsistent with the requirements of the enterprises' managers and thus their lack of interest in the process, or the absence of preventive awareness of the process,

-The impact of European upgrading programs on the competitive position of study-grant enterprises was positive, as their competitive position improved by 35%,

### **Recommendations:**

Through these results, we can present a set of suggestions and recommendations, which we list in the following:

- Paying more attention to the stages of implementing the upgrading programs, especially the stage of diagnosis and the stage of preparing the upgrading plan,

- The need for good attention to qualifying the human race as the basis for achieving excellence at the institutional level,

- The necessity of adapting the upgrading programs to the requirements and needs of Algerian small and medium enterprises,

- The need to pay attention to information and communication technology and build a database that includes all the information related to the upgrading programs adopted by the Algerian state to be data for future upgrading programs,

-The need to pay attention to the export side of small and medium enterprises and work to facilitate it for them.

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