

The nature of the size of the institution and its impact on fostering a culture of technological innovation - a study of a sample of small and medium-sized enterprises in the state of Blida

طبيعة حجم المؤسسة وأثره على تعزيز ثقافة الإبداع التكنولوجي دراسة لعينة من المؤسسات الصغيرة والمتوسطة لولاية البليدة

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Received: 21/01/2021

Accepted: 19/01/2022

Published: 15/03/2022

Abstract:

The attempt to know the relationship between the nature of the institution and its impact in promoting the culture of technological innovation led us to the need to conduct a field study on a group of small and medium enterprises in the province of Blida, in order to know whether the size of the institution has an impact on the practice of technological innovation or not

this led us to reach that it does not There is no relationship between the size of the institution and its creative culture, but rather due to factors and reasons beyond our studies.

Keywords: size, organization, technology innovation, culture.

Jel Classification Codes: O31,O39.

ملخص:

أن محاولة معرفة العلاقة بين طبيعة المؤسسة وأثرها في تعزيز ثقافة الإبداع التكنولوجي دفعنا إلى ضرورة القيام بدراسة ميدانية على مجموعة من المؤسسات الصغيرة والمتوسطة في ولاية البليدة وذلك لمعرفة هل حجم المؤسسة له تأثير على ممارسة الإبداع التكنولوجي أم لا.

أدى بنا هذا إلى التوصل إلى أنه لا توجد أي علاقة بين حجم المؤسسة وثقافتها الإبداعية وإنما يرجع ذلك إلى عوامل و اسباب خارجة عن دراستنا .

كلمات مفتاحية: حجم؛ مؤسسة؛ إبداع تكنولوجي؛ ثقافة.

تصنيف JEL : O31,O39

1.INTRODUCTION:

Most enterprises strive to maintain and increase their market position by using many tools and means. Innovation is now one of the most competitive instruments for profit, cost reduction and product differentiation. Innovation remains the exclusive preserve of not only large enterprises but also of small and medium-sized enterprises (SMEs), despite their limited means and potential. Therefore, through our study, we sought to find out about the most important things that govern technological innovation and we formulated our main problem as follows:

Does the size of the organization affect the promotion of its culture of technological creativity?

To answer this problem, we have formulated the following hypothesis:-

There is a direct relationship between the size of the enterprise and the culture of technological innovation in it, as the larger the Enterprise, the greater its creative culture, and vice versa.

1-1-The importance of study:

-Shedding light on the reality of technological innovation in this category of small and medium enterprises.

-Trying to find out the motives for technological innovation in small and medium enterprises.

1-2Objectives of the study:

- Demonstrate the willingness of these Enterprise to practice technological innovation.

-Knowledge of enterprises that are most interested in small or medium-sized technological innovation;

-Trying to give recommendations and suggestions as well as solutions to the most important things that have been reached

2. The concept of small and medium enterprises

The definition of small and medium enterprises differs from one country to another and from one agency to another due to several reasons, including the difference in the standards adopted in the definition of this sector, as the one

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among us does not find a unified and comprehensive definition for it, and we will try in this axis to address the most important standards adopted in defining small and medium enterprises and the most important Their characteristics.

2.1. Definition standard of small and medium sized enterprises:

- **Quantity standard:** Among the most important standard used in defining the concept of small and medium enterprises, we find:¹ (خباية عبد الله، 2013، ص14).
- **Capital criterion:** This criterion is considered one of the most important classification standard because it reflects production and investment capacity.
- **Standard of size of assets:** fixed assets owned by the enterprise .
- **Business number standard:** used to measure the enterprise's level of activity and competitiveness
- **Employment standard:** one of the most used standards for simplicity of use and application.
- **The standard of capital coefficient:** the latter is to avoid the mixing of standard and capital to avoid the insufficiency of standard, so it is considered as a double standard.

B- Quality standards: They are as follows:²(قاشي خلد، 2015، ص14)

B-1 Organizational Standard: An enterprise can be classified into small and medium if it has one or two of the following characteristics:

- Combine ownership and management;
- Lack of capital owners;
- The small scope of production and its concentration in a specific commodity or service;
- Small size of production capacity.

B-2- Independence Standard: An institution is considered medium or small if it is at least financially independent at 100 percent.

B-3 standard market share: small and medium-sized enterprises are competitive, not monopolistic, so the market share is limited.

2.2. Defining the Algerian legislator for small and medium enterprises

We find that the Algerian legislature defined small and medium enterprises as being an enterprise for the production of goods and / or services that employ from (1) to two hundred and fifty (250) people, whose annual turnover does not exceed four billion Algerian dinars, or the total annual revenue does not exceed one billion dinars Algerian.³ (المادة 05، 2017، ص04) Article 9/8/10 defined this definition precisely, as it says:⁴(المادة 8 و9، 2017، ص10، ص05)

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Article 8 “A medium-sized enterprise is defined as an institution that employs between fifty and two hundred and fifty people, and its annual turnover ranges between four hundred million Algerian dinars, to four billion Algerian dinars, or its total annual proceeds between two hundred million Algerian dinars to one billion Algerian dinars.

Article 9 “A small enterprise is defined as an enterprise that employs between 10 and 49 persons, and its annual turnover does not exceed four hundred million Algerian dinars, or its total annual proceeds do not exceed two hundred million Algerian dinars.

Article 10 “A very small enterprise is defined as an institution that employs from one person to nine persons, and its annual turnover is less than 40 million Algerian dinars, or its total annual proceeds do not exceed twenty million Algerian dinars.

Table 1. Distribution of small and medium enterprises according to the Algerian legal definition

	Annual tally	Business Number	Numberof Workers
Medium enterprises	Between 200 million to one billion dinars	From 400 million to 4 Billion dinars	From 50 to 250
Small enterprise	Less than 200 million dinars	Less than 400 million Dinar	From 10 to 49
Micro Enterprise	Less than 20 million dinars	Less than 40 million dinars	01 From 09 to

Source: Prepared by the student based on Article 5 of Law No. 17-02, which includes the Directive Law for the Development of Small and Medium Enterprises, Official Gazette of the Algerian Republic, Issue 02, issued on January 11, 2017

2.3. Characteristics of small and medium enterprises

-Small and medium enterprises are characterized by a set of characteristics that distinguish them from other institutions, which can be summarized as follows:⁵ (neeta baporikar,2015,p6)

- The owner of the project is usually the General Manager.

-The entrepreneur has a network of personal contacts to customers, suppliers, and related public sector.

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- Usually the area of work of the institution is local.
- The organization can react quickly to changes in the environment
- Their market share is usually small.
- Products of little variety.

3. Creativity

The extensive development of economic products and the huge number of markets make most enterprises survive and maintain their own market position in the continuous competition the pursuit of excellence and innovation as a way to keep pace with development and increase market value inevitably requires a sustained search source leadership.

3.1. Definition of creativity:

- Albert Sint Georgi defined it⁶ (بيتر كوك، 2007، ص12): "Creativity is seeing what other people see and thinking about it differently."
- And the scientist (Joan) Gowan knew it: creativity is a combination of capabilities, aptitudes and personal characteristics that, if a suitable environment is found, can upgrade the mental processes to lead to original and useful results for the individual, company, society or worker.⁷ (خير الله جمال أنيس، 2008، ص6)
- Creativity is a mental process that leads to solutions, ideas, concepts, art forms, theories, and products that are characterized by uniqueness and modernity.
- And from it, we find that creativity is a group of different elements if they are available or all or some of them are combined that give us what is called creativity 21 (سليم بطرس منير عبوي⁸، ص2006)، and therefore we see that creativity “is the use of ideas and physical, mental or financial capabilities in a smart way that enables us to access new and modern products and services.”

3.2. Stages of Creativity:

Many researchers differ in arranging the stages of the creative process due to the absence of fixed stages through which all creative processes go through, but there is variation and difference in these stages, an example of which :⁹(سلام رعد حسن، 2017، ص16) can be mentioned as follows:

- A - the stage of realizing the need for creativity

Management realizes the need for creativity when there is a gap between expected performance and current performance, and therefore creative thinking occurs in response to this gap or when the organization or group realizes the importance of some creativity as a prerequisite for the continuation and survival of the organization.

- B - the initiative stage to put forward creative ideas

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This stage embraces the creative proposals of others who represent the work group in order to solve the problem or improve the current situation, and there is no doubt that this stage is important in activating the creative process by accepting the creative ideas that contribute to solving the problem or lead to generating additional ideas or rejecting those ideas and thus lost The creative process is part of its existence.

- C-Phase of Application:

In this stage, the desired creative ideas are adopted and employed, and it is expected at this stage that some adjustments will be made to the ideas to enable them to be applied successfully.

- D-Stability Stage:

It is the stage in which the creative work or the creative idea becomes a normal part of the management work as it is related to the culture and standards of control procedures in the organization.

In spite of all these stages, it is not required in the creative process that it go through all of these stages in order, but these stages are considered to be intertwined with each other. The creative process can also contain other stages not mentioned previously. Thus we conclude that the stages of the creative process are not fixed and stable, but rather they are Variable depending on the process you are in.

4. The practical part

- The applied part of the study dealt with a group of small and medium enterprises in the state of Blida, in order to get closer to these institutions and to know the extent of their adoption of a culture of technological innovation, and we have relied on a set of questions to obtain the raw information for our study.

4.1 Study population and sample

- Our study community is represented in a group of small and medium enterprises in the wilaya of Blida, where we worked on distributing 40 questionnaires; only 35 questionnaires were retrieved, while the number of processable questionnaires was estimated at 30 questionnaires.

4.2. Analyzing the data related to the primary information of the study

- A- Distribution of the sample according to the activity sector

- Table 2. Distribution of the sample according to the activity sector

Activity sector	Repetition	percentage
Industrial	28	93.3

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Service	2	6.7
Total	30	100

Source: Prepared by the student using the spss program.

It is clear from the previous table that 93 percent of the sample members are industrial enterprises, while 6.7 percent are service enterprises.

- B- Distribution of the sample members according to the chronological age of the activity

- **Table 3.** Distribution of sample individuals according to chronological age

Chronological age	Repetition	percentage
Less than 3 years	8	26.7
From 3 to 7 years	3	10
More than 8 years	19	63.3
Total	30	100

Source: Prepared by the student based on the spss program.

We notice from the above table that two-thirds of the sample had a lifetime of activity more than 8 years, while a tenth of the sample had a chronological age of activity limited to between 3 and 7 years, while the remainder of the first category, whose activity age does not exceed 3 years, is estimated at 26.7%.

- C- Distribution of the sample members according to the nature of the institution

Table 4. Distribution of the sample according to the nature of the institution

Activity sector	Repetition	percentage
Small	17	56.7
Medium	13	43.3
Total	30	100

Source: Prepared by the student based on the spss program.

From the table above, we can see that 56 percent of the study sample is small enterprises, while the remaining 43 percent are medium institutions, with an estimated number of 13 institutions.

4.3. Study the relationship between the nature of the enterprise and the culture of technological innovation

Here we will calculate the relationship between the nature of the organization with a set of variables of technological innovation individually, based on the k-square test in order to see if the relationship between these variables is independent or related to each other where this test starts based on two assumptions:

H0 = zero theory states that the two variables are independent if the value of $\text{sig} > 0.05$.

- H1 = alternative theory is relied upon in the case of a $\text{sig} < 0.05$ value.

- A- Calculating the relationship between the nature of the institution * The organization specializes a specific unit responsible for creativity

Table 5. The relationship between the nature of the institution and the organization's allocation is a specific unit responsible for creativity.

Source: Prepared by the student based on the spss ogram.

Nature of enterprise	Specialized units of enterprises are responsible for creativity			
	Yes		NO	
	Repetition	percentage	Repetition	percentage
Small	13	43.3	4	13.3
Medium	10	33.3	3	10
Total	23	76.7	7	23.3

From the data shown in the above table, it becomes clear to us that 23 institutions out of the total sample allocate a unit responsible for creativity, at a rate of 76.7%, of which 13 are small and 10 medium institutions, at rates of 43.3% and 33.3%, respectively.

Table 6. Kido test

	value	Df	Asymptotic Significance(2-sided)
Pearson Chi-Square,	0.001	1	0.977
Likelihood ratio	0.001	1	0.977
Linear-by –Linear Association	0.001	1	0.977
N of Valid Cases	30		

Source: Prepared by the student based on the spss program.

-We find through the data shown in the table:

-Chi-squared value = 0.001.

-The statistical significance value, $\text{sig} = 0.9$, is greater than 0.05.

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Thus, it becomes clear through the table that there is no relationship between the nature of the institution and its allocation to a specific unit responsible for creativity in the study sample, because the significance value was greater than 5% and therefore we accept the null hypothesis that states that the two variables are independent.

Table 7. the correlation coefficient for each of Persen and Spearman

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Pearson's R	0.005	0.182	0.028	0.978
Spearman Correlation	0.005	0.182	0.028	0.978
N of Valid Cases	30			

Source: Prepared by the student based on the spss program.

We note from the previous table the results of the correlation test for both Persen and Spearman, which estimated 0.005 at a significance level of 0.978.

- B - Calculating the relationship between the nature of the enterprise and the number of workers responsible for the creative process

Table 8. The nature of the institution * The number of workers responsible for the creative process

Nature of enterprise	The organization suffers from the problem of the high cost of the creative process			
	Yes		NO	
	Repetition	percentage	Repetition	percentage
Small	14	46.7	3	10
Medium	12	40	1	3.3
Total	26	86.7	4	13.3

Source: Prepared by the student based on the spss program.

From the figures recorded in the top table we find that these ratios are somewhat similar to those recorded in the previous question, as 23.3 percent of enterprises cost less than 2 workers to do the creative process, which corresponds to the results of institutions that do not allocate a unit responsible for creativity, which can be said that these institutions do not allocate a unit but practice the creative process through one or two people in the institution, while 76.7% are commissioned by 76.7 percent. More than 3 workers to carry out the creative

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process and it correspond to the percentage of organizations that allocate a complete unit to the creative process.

- Table 09: Kido Test

	value	Df	Asymptotic Significance(2-sided)
Pearson Chi-Square,	0.810	1	0.368
Likelihood ratio	0.837	1	0.360
Linear-by –Linear Association	0.783	1	0.376
N of Valid Cases	30		

Source: Prepared by the student using the spss program

Through the values listed in the table it is clear to us that there is no relationship between the nature of the organization and the number of workers assigned to the creative process because the value of sig=0.368 is greater than 0.05 and therefore we accept the zero hypothesis that stipulates the independence of both variables and that there is no correlation between them.

Table10. the correlation coefficient for each of Persen and Spearman

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Pearson's R	0.164	0.172	0.882	0.385
Spearman Correlation	0.164	0.172	0.882	0.385
N of Valid Cases	30			

Source: Prepared by the student using the spss program.

The table shows the value of Pearson and Spearman, which was estimated at 0.164 at a significance level of 0.385, which in turn states that there is no relationship between the nature of the enterprise and the number of workers responsible for the creative process.

- C- Calculating the relationship between the natures of the institution. The institution continues to buy creativity from external agencies or laboratories

Table11. The nature of the institution * The institution continues to buy creativity from external agencies or laboratories

Nature of enterprise	The organization suffers from the problem of the high cost of the creative process
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	Yes		NO	
	Repetition	percentage	Repetition	percentage
Small	14	46.7	3	10
Medium	12	40	1	3.3
Total	26	86.7	4	13.3

Source: Prepared by the student based on the spss program.

The figures in the table indicate that the percentage of institutions that continue to buy creativity from external agencies or laboratories is half the number of the study sample, while the other half seeks to achieve its creativity with expertise and skills within the institution.

Table12. the Kido test

	value	Df	Asymptotic Significance (2sided)
Pearson Chi-Square,	0.136	1	0.713
Likelihood ratio	0.136	1	0.712
Linear-by –Linear Association	0.131	1	0.717
N of Valid Cases	30		

Source: Prepared by the student based on the spss program.

You notice through the values recorded in the table that the two variables, the nature of the institution and its desire to obtain creativity from external laboratories, are two independent variables, as the value of sig = 0.713, which is greater than 0.05, and therefore we accept the null hypothesis that states that there is no correlation between the two previous variables.

Table13. the correlation coefficient for both Persen and Spearman

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Pearson's R	-0.067	0.182	-0.357	0.724
Spearman Correlation	-0.067	0.182	-0.357	0.724
N of Valid Cases	30			

Source: Prepared by the student based on the spss program.

The values recorded in the table show us that the correlation value of both Persen and Spearman confirms that there is no relationship between the nature of

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the size of the organization and its desire to buy creativity from external agencies or laboratories, where the value of sig = 0.724, which is greater than 0.05.

- D - Calculating the relationship between the nature of the institution * the institution suffers from the problem of the high cost of the creative process

Table 14. The relationship between the nature of the institution * The institution suffers from the problem of the high cost of the creative process

Nature of enterprise	The enterprise is interested in renewing and improving its products			
	Yes		NO	
	Repetition	percentage	Repetition	Percentage
Small	14	46.7	3	10
Medium	12	40	1	3.3
Total	26	86.7	4	13.3

Source: Prepared by the student based on the spss program.

We notice from the values recorded in the above table that 53% of enterprises suffer from the problem of high cost, of which 33% are small enterprises and 20% of medium enterprises, in contrast to 46% of these institutions that do not see any problem with the high cost of the creative process and that it is Able to cover it.

- Table15. Kido test

	Value	df	Asymptotic Significance(2-sided)
Pearson Chi-Square,	0.475	1	0.491
Likelihood ratio	0.476	1	0.490
Linear-by –Linear Association	0.459	1	0.498
N of Valid Cases	30		

Source: Prepared by the student using the spss program.

The numbers in the previous table show us that sig = 0.491, and therefore we accept the null hypothesis which states that the two variables (the nature of the institution * does the institution suffer from the problem of the high cost of the creative process) are independent and we judge that there is no correlation between them.

-Table16. Correlation Coefficient for each of Pearson and Spearman

	Value	Asymptotic	Approximate	Approximate
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		Standard Error^a	T^b	Significance
Pearson's R	-0.126	181.	-0.671	0.508
Spearman Correlation	-0.126	0.181	-0.671	0.508
N of Valid Cases	30			

Source: Prepared by the student using the spss program.

The value of both Persen and Spearman shows us that there is no relationship between the nature of the organization and the problem of the high cost of the creative process, where the sig value for each is 0.508, which is greater than 0.05.

- E - Calculate the relationship between the nature of the institution * the institution is interested in renewing and improving its products

- Table 17. The relationship between the nature of the institution and whether the institution is interested in renewing and improving its products

Nature of enterprise	The Foundation seeks to acquire the latest equipment and devices to carry out the creative process			
	Yes		NO	
	Repetition	percentage	Repetition	percentage
Small	14	46.7	3	10
Medium	12	40	1	3.3
Total	26	86.7	4	13.3

Source: Prepared by the student using the spss program.

We notice from the table that 53% of the enterprises are interested in renewing and improving their products, in contrast to 46% of them that do not care about this aspect.

- Table18. Kido test

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square,	0.475	1	0.491
Likelihood ratio	0.674	1	0.490
Linear-by –Linear Association	0.459	1	0.498
N of Valid Cases	30		

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Source: Prepared by the student based on the spss program.

We notice through the table that the value of chi-do is equal to 0.475, while the value of sig = 0.491, which is greater than 0.05, and therefore we accept the null hypothesis that states the independence of the two variables, that is, there is no relationship between the nature of the institution and whether the organization is interested in renewing and improving its products.

- **Table 19.** the correlation coefficient for both Persen and Spearman

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Pearson's R	0.126	0.181	0.671	0.508
Spearman Correlation	0.126	0.181	0.671	0.508
N of Valid Cases	30			

Source: Prepared by the student based on the spss program.

The table above shows us the value of the correlation of each Pearson and Spearman, which was estimated at 0.126 and the value of sig = 0.509. Therefore, no correlation was found between the two variables.

The relationship between the nature of the organization * the organization seeks to acquire the latest equipment and devices to carry out the creative process

Table 20. Relationship with the nature of the organization and whether the organization seeks to acquire the latest equipment and equipment -

Nature of enterprise	The Foundation seeks to acquire the latest equipment and devices to carry out the creative process			
	Yes		NO	
	Repetition	percentage	Repetition	percentage
Small	14	46.7	3	10
Medium	12	40	1	3.3
Total	26	86.7	4	13.3

Source: Prepared by the student based on the spss program.

From the values obtained in the table, it is clear to us that 86 percent of the establishments seek to acquire the latest equipment and devices, of which 46 percent are small enterprises and 40 percent are medium-sized enterprises, while the remaining 13 percent think otherwise.

- **Table (22):** Correlation coefficient for each of Pearson and Spearman

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	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Pearson's R	0.145	0.165	0.776	0.444
Spearman Correlation	0145	0.165	0.776	0.444
N of Valid Cases	30			

Source: Prepared by the student based on the spss program.

Through the values listed in the table, we note that the correlation value of Pearson and Spearman amounted to 0.145 and the value of sig = 0.444 and from it we accept the null hypothesis that there is no correlation between the two variables, which supports the results of the chi-squared test.

5. Conclusion

Considering that technological innovation has become an urgent necessity imposed by the competitive conditions on the enterprise, its adoption by the institution is not an easy matter due to the competencies and skills it requires in addition to the financial and material means. However, in our current time, we see a great acceleration on the part of institutions to practice this process and keep abreast of developments in the external environment, and among these institutions we find small and medium enterprises that have also become discerning and alert to acquire all the means to assist in development, progress and leadership.

We have found through our research this and through the statistical treatment of the data obtained that there is no relationship between the size of the institution and the culture of technological innovation in it, as it can be said that technological innovation does not necessarily require large and huge institutions to establish or embody it, but rather that all institutions, regardless of their size, small or medium From practicing this process with ease and flexibility without any problems or obstacles.

Whereas, we can find medium institutions that do not wish to practice this process, but rather wish to acquire patents from outside parties.

Thus, it can be said that the size of the institution does not control the rise of technological innovation and is not an obstacle in its path. Rather, there are other matters outside our study that stand behind it.

6.Recommendations:

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- From the previous results, some suggestions can be made that we would like to benefit from at the public and private level, including more information in studying some topics such as:

-The impact of the cost of technological innovation on the number of patents in the enterprise.

-The reasons and motives that lead the organization to go towards buying creativity from external parties.

-Governmental incentives and encouragements for small and medium enterprises to practice the creative process.

7. Appendices

Questionnaire

University of Blida 2 - Ali Lounisi

Faculty of Economic Sciences, Business and Management Sciences

Questionnaire form

- Honorable brothers, managers of small and medium enterprises

After Greetings,

In preparation for a scientific research under the title **(the nature of the institution's size and its impact on promoting the culture of technological innovation)**, we present to you this questionnaire and ask you to answer its questions, help us and we promise that your answers will be completely confidential and will only be used for the purposes of scientific research.-

With sincere thanks, appreciation and gratitude

Student: Amriou Khoukha

General information

1- What is the activity sector of the institution: service ☐ industrial ☐

2- What is the chronological age of the institution's activity:

Less than 3 years ☐ from 3 to 7 years ☐ More than 8 years ☐

3- The academic level of the path: university students ☐ less than university students ☐

4- What is the nature of the institution: small, ☐ medium ☐

-5- The institution allocates a unit responsible for creativity within the institution:
Yes ☐ No ☐

-6- What is the number of workers responsible for the creative process:
less than 2 ☐ is more than 3 ☐

7 - The Foundation is interested in the renewal and improvement of its products:
Yes ☐ No ☐

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8- The Foundation seeks to acquire the latest equipment and devices to carry out the creative process: Yes ☐ No ☐

9 - The Foundation continues to buy creativity from external agencies or laboratories: Yes ☐ No ☐

10 - The Corporation practices the process of technological innovation to improve the image and competitiveness of the institution: Yes ☐ No ☐

11-The organization suffers from the problem of the high cost of the creative process: Yes ☐ No ☐

12-The institution suffers from the difficulty of protecting creativity from imitation: Yes ☐ No ☐

8.Appendices:

¹ (خبابة عبد الله (2013)، المؤسسات الصغيرة والمتوسطة آلية لتحقيق التنمية المستدامة، دار الجامعة الجديدة، مصر.

² (قاشي خالد، (2015) المؤسسات الصغيرة والمتوسطة كمحرك لتنمية في الجزائر 2005-2013، مجلة الأبحاث الإقتصادية لجامعة البليدة، العدد 12.

³ (المادة 5، من القانون رقم 02-17، المتضمن القانون التوجيهي لتطوير المؤسسات الصغيرة والمتوسطة، الجريدة الرسمية للجمهورية الجزائرية، العدد 02، الصادرة بتاريخ 11 يناير 2017.

⁴ (المادة 10/9/8، نفس المرجع.

⁵ neeta baporikar, (2015) knowledge management in small and medium enterprises ,business science.

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