

A STATISTICAL STUDY OF THE CONTRIBUTION OF SMEs IN ALGERIAN ECONOMIC DEVELOPMENT

A CASE STUDY OF THE PERIOD 2012-2021

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Abstract

This study aims to quantify the contribution of Small and Medium-sized Enterprises (SMEs) to socio-economic development through the analysis of its contribution to Employment, Gross Domestic Product (GDP), Added Value outside of Hydrocarbon and Foreign Trade. A statistical study was conducted on the evolution of these indicators during the period between 2012 and 2021 to highlight the importance of SMEs which recorded a continuous evolution in the creation of jobs and wealth demonstrated by the share of added value. Despite this modest contribution, the findings showed that the role of SMEs in exports remains insufficient, which belays the dependence on rentier economy.

KEYWORDS: SMEs, Employment, GDP, Added Values outside of Hydrocarbon, Foreign Trade.

1- Introduction

The organizational environment and the economic context play an increasingly important role in the creation and development of SMEs. Therefore, the importance of government and regulatory policies that allows optimal macroeconomic management, which promotes a favourable climate for the establishment and harmonization of SMEs. Since the independence, Algeria has experienced several economic fluctuations which resulted in the abandonment of the socialist system and a move towards a market economy. In addition, globalization, fluctuations and international and regional economic changes through their implications on local conditions have prompted the need to focus on the development of the institutional system of SMEs to reduce the negative repercussions of the partnership with the European Union and to join the World Trade Organization (WTO) in the future. Small and Medium-sized Enterprises constitute a major preoccupation of the country and an essential concern of researchers due to their presence in the economic fabric, their unequivocal contribution to the growth of emerging countries through the promotion of local products, job creation and consequently the minimization of unemployment rate, which generates intrinsic utility for the economic and social development of the country. Furthermore, the adoption of an economic strategy based on SMEs must be accompanied by well-defined programs, structures containing organizations and agencies to support, promote and develop SMEs.

Several countries have taken into account the development of SMEs. In recent years, Bangladesh for example, has made remarkable progress in various aspects of its economy, including agriculture, garments, textiles, and other manufacturing industries (Hossin, Azam, & Hossain, 2023, p. 196). Politicians, academicians and developmental economists are of the view that enhancing small business development and promoting entrepreneurship would be a good strategy to contribute and promote economic development (Kongolo, 2010, p. 2289).

2. Study Problem:

Small and Medium-sized Enterprises play an eminent role in the national economy and in the engine of economic growth and development, thanks to the policies, plans and support facilities provided by the Algerian government to these SMEs, and hence the problem that arises is:

What is the role of Small and Medium-sized Enterprises in supporting the development of the Algerian economy during the period 2012-2021?

- **Sub-questions:**

From this central question arise the following sub-questions:

Q1: To what extent do SMEs contribute to supporting employment?

Q2: To what extent do SMEs contribute to Gross Domestic Product?

Q3: To what extent do SMEs contribute to promoting non-hydrocarbon exports?

- **Hypotheses:**

To answer these questions, it is deemed it useful to propose the following hypotheses:

H1: Small and Medium-sized Enterprises contribute to creating jobs and thus reducing unemployment.

H2: Small and Medium-sized Enterprises contribute to creating added value and thus increasing GDP.

H3: Small and Medium-sized Enterprises contribute to raising the value of exports outside of hydrocarbons.

3. Previous Studies:

The importance of previous studies lies in the gap that researchers may have missed. It is therefore possible to deepen it and provide a scientific complement to the research subject. From there, several studies will be discussed that deal with the development of SMEs in different periods.

- A study compiled by (Mechaali, 2023). This study aimed to highlight the role of SMEs, their contribution to job creation and reduction of unemployment in Algeria between the periods 2010-2019. A set of statistical methods and graphics were used to analyse the data obtained from official Algerian resources. After analysing the data, the study concluded that Small and Medium-sized Enterprises in Algeria are fragile and do not contribute effectively to the creation of employment opportunities, where the unemployment rate is still high.
- A study conducted by (Belgoum, Khelifa, Kebir, & Bahbah, 2023) . This study used the cointegration approach by the Autoregressive Distributed Lags (ARDL) methodology to examine the extent to which public and private SMEs in Algeria contribute to the development of added value during the period from 2000 to 2022. According to the study, added value, public and private SMEs in Algeria have an important long-term link. Thus, the expansion of added value is positively correlated with the expansion of SMEs. The results revealed that to accelerate economic development, the Algerian government should focus on promoting the expansion of private SMEs. Giving SMEs access to financing, education and other resources will achieve this.
- A study investigated by (Kacemi & Gadi, 2022). This study aimed to highlight the role of SMEs in boosting the Algerian economy, through their contribution in various areas of development. To do this; a questionnaire was distributed to a sample of 38 SMEs in Oran region. Furthermore, an interview and an observation were adopted to reinforce the study tool. The results highlighted the hypotheses according to which SMEs contribute greatly to the economic and social growth of the Oran region , as it is extracted from the results obtained, 68% of the sample studied contributes to increasing the GDP, 95% in creating added value, and 11% of the sample studied exports its products outside Algeria. This is what pushed Algeria to rely on SMEs to ensure strong economic growth, but this sector has not yet succeeded in becoming a source of wealth and an engine of development for Algeria because SMEs still face several obstacles.
- A study done by (MECHAALI & MAHREZ, 2020). This study aimed to identify the reality of SMEs and their contribution to economic development in Algeria, this sector is being considered the main engine of economic development in the world. The results showed that despite the efforts made by the Algerian government to develop SMEs, the results remain insufficient and the contribution of SMEs to economic development (employment, exports, GDP, added value) has not been achieved, which requires intensifying efforts, and new strategies to face the challenge and overcome financing, technology and marketing difficulties.

- The last study conducted by (Bouazza, Ardjouman, & Abada, 2015). This study analysed the factors influencing the growth rate of SMEs in Algeria and explored the extent to which their success or failure depended on the broader business climate. Furthermore, it examined different internal factors that may be responsible for the unstable and limited growth of SMEs. Findings showed that SMEs growth in Algeria is hampered by several interrelated factors, including business environmental factors beyond the control of SMEs and factors external to SMEs. External factors include the legal and regulatory framework, access to external financing and human resource capacity. Internal factors include entrepreneurial characteristics, management capabilities, marketing skills, and technological capabilities.

4. Contribution of SMEs to the development of the national economy:

The SME sector has witnessed remarkable growth in recent years thanks to the policies, mechanisms and support programs adopted by the government in establishing, monitoring, promoting and qualifying these enterprises to be able to compete in the global market. But the question that lies in this context is the extent to which Small and Medium-sized Enterprises are able to contribute to the development of the national economy

In this part, the answer of this question is by examining the role of these Small and Medium-sized Enterprises in creating job opportunities and their contribution to value added and GDP.

4.1. Contribution of SMEs to employment:

The phenomenon of unemployment is one of the major concerns and a social problem in Algeria that the authorities seek to resolve, since the adoption of the market economy system, entrepreneurship has been considered as a solution to minimize the intensity of this phenomenon.

In this point it is crucial to focus on the contribution of SMEs to job creation:

Table N° 1: Employment declared by component

Unit: Billion DZD

Years/ Nature of SMEs	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Private SMEs	1800742	1953636	2110665	2327293	2511674	2578279	2668173	2864566	2968618	3114860
Rate of growth	-	8,49	8,04	10,26	7,92	2,65	3,49	7,36	3,63	4,93
Public SMEs	47375	48256	46567	43727	29024	23679	22073	21085	20898	20108
Rate of growth	-	1,86	-3,50	-6,10	-33,62	-18,42	-6,78	-4,48	-0,89	-3,70
Total	1848117	2001892	2157232	2371020	2540698	2601958	2690246	2885651	2989516	3134968
Rate of growth	-	8,32	7,76	9,91	7,17	2,41	3,39	7,26	3,60	4,87

Key: DZD - Algerian dinar

Source: Compiled by the researchers based on statistical information bulletins from 2012-2021

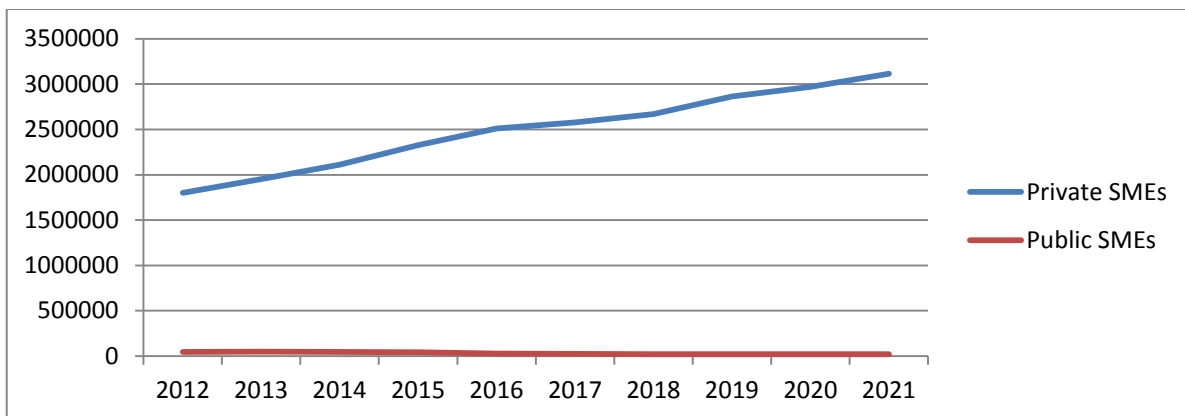
From the data presented in the table above, it can be noted that the growth rate of employment in private SMEs experienced an average increase of 6.31% during the period 2012-2021; this progression is due essentially to the evolution of many private SMEs, particularly in the service, public works, building and hydraulic, and industrial sectors. In addition, a maximum rate was

recorded during the year 2015 which amounted to 10.26% and a minimum rate during the year 2017 which reached 2.65%.

However, the data presented concerning public SMEs show an average regression of -8.40%, this regression which reached a rate of -33.62% in 2016, which is justified by the high mortality rates of public SMEs particularly in 2016 and also the privatization of SMEs to the private sector.

It should be noted, in this regard, that before 2010 there were artisanal activities which were integrated into the cumulative employment of private SMEs of all types combined with employers of private SMEs (legal entities) and heads of private enterprises within liberal functions.

Figure N°1: Employment declared by component



Source: developed by the researchers based on statistical information bulletins from 2012-2021

The figure above shows that private SMEs generate the highest number of jobs given that they encompass important activities such as services, public works, building and hydraulic, and industrial sectors, especially from the year 2010 after integrating craft activities, hence this comes down to all the procedures adopted by the government such as the exemption ratio from which employers benefit in the field of social insurance, which is supported by the government, increasing from 56% 80% in the northern regions and 72% to 90% in the southern and high plateau regions as part of supporting job creation by SMEs.

4.2. Contribution of SMEs to Gross Domestic Product (GDP):

The contribution of SMEs to the development of the national economy is also reflected in the growth of Gross Domestic Product.

✓ Evolution of GDP by legal sector outside of hydrocarbons:

The private sector represents a large part of the Gross Domestic Product (GDP) excluding hydrocarbons where its contribution reached a rate of 88.3% in 2013, which reflects the importance of private SMEs to the development of the national economy.

Table N° 2: Evolution of GDP outside of hydrocarbons

Unit: Billion DZD

Years/ Legal sector	2012	2013	2014	2015	2016	2017	2018	2019
Share of public sector in GDP	793,38	893,24	/	/	/	/	/	/
Percentage %	12,01	11,7	/	/	/	/	/	/
Share of private sector in GDP	5813,02	6741,19	/	/	/	/	/	/
percentage %	87,99	88,3						
Total	6606,40	7634,43	8526,58	9237,87	9943,92	10106,76	10886,62	11540,6
percentage %	100	100	100	100	100	100	100	100

Key: DZD - Algerian dinar

Source: Compiled by the researchers based on statistical information bulletins from 2012-2021

From the table above, it is noted that the private sector represents a significant percentage of non-hydrocarbon GDP with an average rate of 84.89% during the period from 2007 to 2013 compared to the SME of the public sector which only represents 15.11% of GDP excluding hydrocarbons during the same period, this indicator signifies the role of the private sector in economic growth, therefore, it is necessary to invest more and more in this sector by providing sufficient support for all entrepreneurial activities (Saidat, 2019, p. 94) . However, it is clear that the total contribution increased from 2012 to 2019 in absence of details concerning public and private sectors. In other words, according to (Saidat, 2019), it clearly turns out that the shares of the private sector in GDP are continuously increasing from one year to another and which reached 6741.19 billion DA in 2013 after having been 3153.77 billion DA in 2007, on the other hand, it is noted than an instability in the shares of the public sector which reached 923.34 billion DA in 2011 and 793.38 billion DA in 2012. In general, it can be said that GDB has known an evolvment during this period.

4.3. Evolution of added value by legal sector outside of hydrocarbons:

Table N° 03: Evolution of added value outside of hydrocarbons

Unit: Billion DZD

Years / Legal sector	2012	2013	2014	2015	2016	2017	2018	2019	2020
Share of public in added value	739,38	893,24	1187,93	1313,36	1414,65	1291,14	1362,21	1449,22	1299,91
Percentage %	12,01	11,70	13,9	14,22	14,23	12,775	12,51	12,66	12,23
Share of private sector in	5813,02	6741,19	7338,65	7924,51	8529,27	8815,62	9524,41	10001,3	9326,55

added value									
percentage %	87,99	88,30	86,07	85,78	85,77	87,225	87,49	87,34	87,77
Total	6552,4	7634,43	8526,58	9237,87	9943,92	10106,76	10886,62	11450,6	10626,46
percentage %	100	100	100	100	100	100	100	100	100

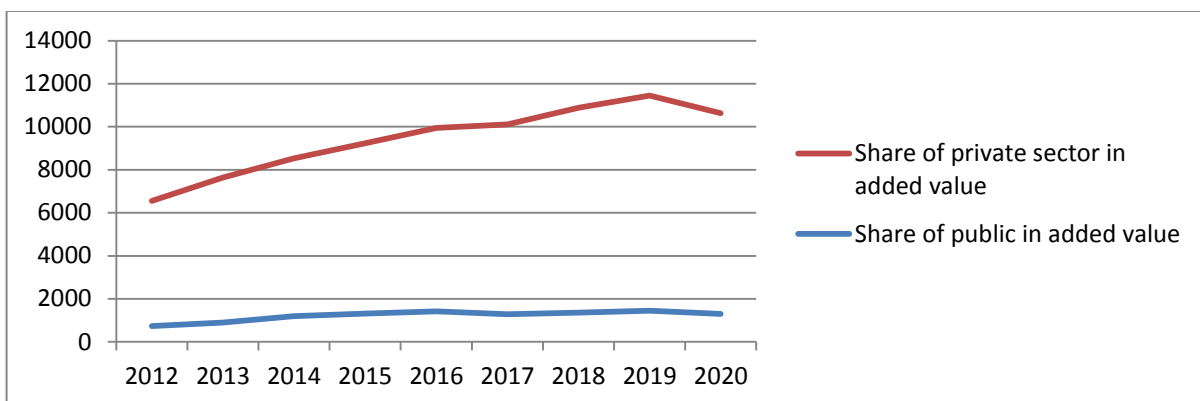
Key: DZD - Algerian dinar

Source: Compiled by the researchers based on statistical information bulletins from 2012-2021

In light of this table, it is noted that the private sector contributes to approximately 90% of the added value excluding hydrocarbons, this domination of the private sector is reflected in the significant contribution of the main activities such as agriculture which reached 2598, 50 billion DA in 2020 followed by the activities of public works, building and hydraulic (BTPH) then transport and communication with a contribution of 2285.08 billion DA and 2044.05 billion DA respectively. It should also be noted that a considerable contribution recorded by trade and distribution activities with an amount of 1987.21 billion DA in 2020 and this thanks to the orientation of investors towards this type of activities since the end of the 80s after having been abandoned by the government. However, with regard to industry, hotels and restaurants and business-related services, there is a low contribution from these activities which does not exceed 193.77 billion DA and 465.58 recorded by the activities of the agro-food industry.

These results show that the private sector has become a primordial economic base, particularly in terms of developing markets and marketing areas, and to gradually close ports to the parallel economy which has destroyed emerging economies. In this regard, Algeria really needs to strengthen the SME sector to fill the hole left by the public sector for two decades and to minimize the volume of imports, and this by establishing very specific protection rules for sectors of emerging economies to cover the large deficit in the areas of agriculture, services and light industries which require a lot of resources.

Figure N°02: Evolution of added value outside of hydrocarbons



Source: Compiled by the researchers based on statistical information bulletins from 2012-2021

4.4.Foreign trade indicators in Algeria:

The following table represents the evolution of foreign trade in Algeria during the period from 2012 to 2021, taking into consideration the contribution of SMEs to the development of total exports.

Table N° 4: Evolution of foreign trade:

Unit: in millions of US dollars

Years/ Indicators	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
non- hydrocarbon exports	2062	2014	2810	1969	1781	1898	2818	/	/	/
Percentage %	2,87	3,10	4,46	5,68	6,16	5,25	48,47	/	/	/
hydrocarbon exports	69804	62960	60146	32699	27102	17189	38350	/	/	/
Percentage %	97,13	96,90	95,54	94,32	93,84	94,75	123,10	/	/	/
Total exports	71866	64974	62956	34668	28883	34763	41168	35823.54	23796,60	39280,83
imports	50376	55028	58330	51702	46727	22986	46197	41934.12	34391,64	37683,17
Trade balance	21490	9946	4626	-17034	-17844	-4845	-2956	-6110.58	-10595.84	1597.67

Key: US - United States

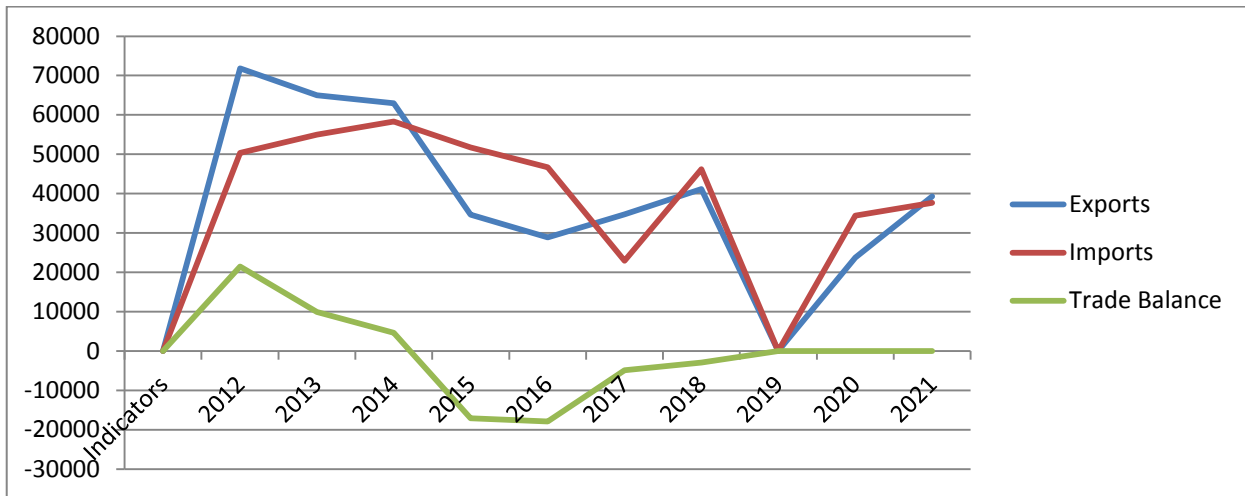
Source: Compiled by the researchers based on statistical information bulletins from 2012-2021

By comparing the volume of non-hydrocarbon exports and that of private sector imports during the period from 2012 to 2021, it is noted that the volume of imports greatly exceeds the volume of non-hydrocarbon exports, i.e. a rate of 48,47% of non-hydrocarbon exports from the total exports recorded in 2018, this means that the Algerian economy depends almost entirely on hydrocarbon exports, this indicator reflects the weakness of the SME sector, the majority of which is involved in the trade of products imported from abroad.

It is also noted that Algeria achieved surpluses in the trade balance from 2007 to 2014, an average of 19,642 million US dollars during this period, but also an instability concerning the surpluses where this the latter reached 39,819 million US dollars in 2008, then 5,900 million US dollars in 2009 (Saidat, 2019, p. 98) , a decrease rate of -85.18% to arrive at a surplus of 4,626 million US dollars in 2014. In addition, the trade balance experienced a deficit from the year 2015 in the amount of -17034 million US dollars, followed by a decrease of -17844 million US dollars due to the decrease in the volume of exports and an increase regarding imports, which explains why Algeria was not able to continue covering their imports with their exports.

These results are influenced by the drop in the price of a barrel of oil since June 2014, which has impacted the national economy and pushed the country into a real economic crisis. Furthermore, in light of these results, it should be noted that despite the efforts made to promote the SME sector in Algeria with a view to increasing non-hydrocarbon exports, this remains insufficient for the upgrading of the national economy.

Figure N°03: Evolution of Foreign Trade



Source: Compiled by the researchers based on statistical information bulletins from 2012-2021

As it has pointed out and despite the efforts made by the government to develop and promote the SME sector in terms of increasing their number or with regard to their contribution to job creation, the capacity of these SMEs to compete remains very limited, this mainly due to the domination of the hydrocarbon sector which covers more than 95% of total exports, therefore, the government must take into consideration that to satisfy the current and future needs of the country that it must take another route to develop the economy, namely entrepreneurial development and the promotion of SMEs not only to be created but to give added value and to deal with the phenomenon of unemployment and for it to be the new engine of the country's economy.

Economist experts declared during the World Entrepreneurship Week in 2013 which was organized at the level of more than 130 countries in the world including Algeria that the latter lost the opportunity to create 2 million declared SMEs. Before 10 years, the question that arises how effective this policy is in achieving the objectives set out? What are the research and analyzes planned in terms of the results achieved? What gaps and inadequacies exist? To find solutions to the problems linked to entrepreneurship in Algeria, which encourages us to make an objective evaluation of this experience based on objective evaluation reasons in the analysis and evaluation of previous experiments.

5- Discussion and Conclusion

The objective of this study was to highlight the contribution of SMEs to the economic development of Algeria. The growing importance of SMEs in the productive fabric in contemporary economies has led the Algerian public authorities to implement a vast program aimed at the development and support of these entities.

The results of the study show that the number of SMEs has experienced a very significant continuous increase. This increase is mainly due to the sustained increase in private enterprises, going from 189,562 enterprises in 2002 to 942,120 in 2020 (Mines, 2012-2020). However, this development is not distributed equitably between the different regions of the country, which allows us to affirm that SMEs in Algeria do not ensure regional balance and, consequently, harmonious development. The detailed analysis of the evolution of private SMEs provided by the relevant

ministry of this sector of activity shows a concentration of the latter in the services sector, followed by the BTPH sector, which explains the meager contribution of SMEs to wealth creation and non-hydrocarbons exports.

Jobs created by SMEs grew by almost 310% over the last twenty years. This development appears clearly in the share of jobs created by SMEs in total employment which increased from 11.74% in 2002 to 23.60% in 2020.

Despite all the efforts made by the government to promote SMEs, the share of non-hydrocarbon exports remains insignificant due to the rentier nature of the Algerian economy. Indeed, hydrocarbon exports remain and remain predominant in total exports. The share of added value created by SMEs in GDP is significant, which demonstrates the place of SMEs in wealth creation.

6- Suggestions and Recommendations:

- Mitigation of the general policy adopted, which can be considered the greatest obstacle to the development of entrepreneurial culture, and leave the initiative to independent work by limiting the role of the Government to supervision and control;
- The policy of supporting the spirit of entrepreneurship should not be limited to the Government, it should also include economic actors, in particular banks, paying particular attention to the fate and sustainability of existing enterprises, as well as the acceleration of administrative procedures to support enterprises creation;
- The participation of all governmental and non-governmental organizations, the private sector, experts and university executives in the design of an education and training strategy linked to entrepreneurship and innovation;
- Modernize incubators and business nurseries, connect them to universities and research centers and activate technological incubators, which contribute to the creation of numerous products to abandon or reduce the import policy.
- Promote national production by developing a comprehensive policy aimed at limiting the importation of products that can be manufactured in the country, combating the phenomenon of market dumping and controlling the informal economy to encourage entrepreneurship;
- Train specialists in the different stages of supporting SMEs; reception, principles of studies and feasibility in establishing projects, administrative aspect and business management.

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