Firm performance: Diversification by Sector

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Abstract

The article makes it possible to study a group of 80 Oran SMEs, including 64 SMEs belonging to the Manufacturing sector, 10 SMEs belonging to the Building and Public Works sector, and 6 activating in Foreign Trade (Import-export). Data from these are collected for the period [2008-2012]. The objective is then to analyze the performance of these SMEs, by calculating the basic indicators, and this after the application of the descriptive statistics, which made it possible to define this evolution. The SMEs surveyed, however, justified a diversification and peculiarity of performance by sector of activity.

Keywords: industry, construction, import-export, SME, performance.

Résumé:

L'article permet d'étudier un groupe de 80 PME Oranaises, dont 64 PME appartenant au secteur des Industries manufacturières, 10 PME appartenant au secteur du Bâtiment et Travaux Publiques « BTP », et 6 activant dans le Commerce extérieur (Import-export). Les données de ces dernières sont collectées pour la période [2008-2012]. L'objectif est alors d'analyser les performances de ces PME, par le calcul des indicateurs de base, et cela après l'application des statistiques descriptives, qui ont permis de cerner cette évolution. Les PME enquêtées ont cependant justifié une diversification et particularité de performance par secteur d'activité.

Mots clés: industrie, BTP, import-export, PME, performance.

Introduction

The purpose of the work is to present the analytical context by highlighting the sectors, manufacturing industries, construction (Buildings and public works "BTP"), and foreign trade "Import-export" thus presenting key sectors for the development of the liberal economy, particularly in terms of competitiveness and free trade. Indeed, this article presents the result of the empirical study to answer the main question on which the problematic guiding our work is articulated, namely: Which performances of the SMEs of the wilaya of Oran?

1. The theoretical framework of the study: "Business performance: literature review"

In fact, the issue of SME performance is at the heart of all research and economic considerations. This concept is one of the most frequent words in the speeches of economists and managers, in the company's activity reports and in research on the organization. However, the meaning of this concept is often very different for each situation, each case, and each company, which does not lead to a common definition of this term.

Thus, the evaluation of the company's performance goes far beyond the evaluation of its financial performance alone. The business diagnosis can't be reduced to the financial diagnosis. So, in order to make a valid diagnosis of a company, it is necessary to be able to analyze also the performances in the fields of production, quality, logistics, etc. (Plauchu, V, [2006]).

In this sense, and concerning the historical context, managerial research has shown the predominance of the financial approach in the conception of the performance, when it was confused with the maximization of the wealth for the shareholders. From the 1980s, movements in the managerial context accompanied by the integration of new conceptualization of value and qualitative indicators stimulated the evolution in thinking about performance. Managers are more interested in the appropriate conditions for achieving performance; hence the question of the company's frontier becomes irrelevant to the question of the impact of the context. However, the understanding of the dimensions of the organizational performance approach is not obvious since the performance relates particularly to the achievement of the objectives of the company (Quach, T, [2006]).

Lebas, [1995] defines performance as "a question of potential for realization", that is, performance is a concept that relates to the future, not the past. This definition seems very futuristic, since it ignores previous achievements and leaves performance measurement an

even more complex task. It states that, performance exists only if it can be measured and this measure can in no way be limited to the knowledge of a result¹.

On the other hand, Pfeffer and Salancik, [1978] consider that the performance of an organization is judged on its "ability to produce acceptable results".

2. The empirical framework of the study: "Analysis and performance evaluation of surveyed SMEs"

2.1. Presentation and characteristics of the sample

We chose a sample of companies that meets the following criteria: - Companies under Algerian law belonging to the industrial productive sector. This choice is, in fact, explained by a greater exposure of these industries to foreign competition following the establishment of a free trade area by 2017 with the EU;

- Indeed, the choice of the sample covers the different types of the sector of the manufacturing industries namely agribusiness, textile clothing and leather and footwear, chemistry, mechanics and electrical, building materials, as well as industries Wood and Paper;
- As well as private companies activating in the sector of Buildings and public works "BTP", and others in foreign trade, namely "Import & Export". So the choice of the latter two is explained by their clear predominance in Algerian economic activity, as well as by the concentration of private SMEs in these sectors;

2.2. Detailed description of the sample surveyed

Thus, the spatial field of this empirical study covers a group made up of 80 Oran SMEs, including 64 activating in the industrial sector and thus presenting the majority of the surveyed population, shared over seven (7) industrial sectors; Agribusiness, Chemical & Plastics and Pharmaceuticals, Textiles, Wood and Paper Industries, Leather, Skins & Shoes, ISMMEE, and Building Materials. So, 10 SMEs belonging to the sector (Buildings and public works "BTP"), and 6 activating in foreign trade "Import-export".

¹Lauras. M, (2004), "Methods of diagnosis and evaluation of performance for the management of supply chains: Application of the cooperation between mother and mother international subsidiaries in a pharmaceutical and cosmetic group", Thesis of doctorate in "Industrial Systems", prepared at the Industrial Engineering Center of Mines of Albi-Carmaux, Toulouse, France, supported on 07 July.

Indeed, data from these are collected for the years: [2008], [2009], [2010], [2011] and [2012] in order to study the evolution of their activities. The following table presents the detailed breakdown of the companies surveyed by sector of activity:

Table (1.): The 80 SMEs surveyed by sector of activity

Sector	Number of SMEs
Manufacturing industries (A.)	64
1. Food industry (A.A.)	17
2. Construction materials (A.B.)	15
3. Chemistry & Plastics and Pharmacy (A.C.)	14
4. ISMMEE (A.D.)	6
5. Wood & paper industry (A.E.)	5
6. Textiles (A.F.)	5
7. Leather, Skins & Shoes (A.G.)	2
B.T.P.H (B.)	10
Import&Export (C.)	6
Total	80

Source: Personal confection.

3.2. Definition of variables

We have an observation of these 80 SMEs for the variables available namely the years: [2008], [2009], [2010], [2011], and [2012]. In fact, the indicators used also concern the level of sales, investment, turnover and added value. We also find the number of employees, as well as the debt structure. In this sense, it should be noted that we were able to collect the necessary data to calculate the list of performance variables (indicators) for each company in our sample.

3.3. Analysis of the overall evolution of the indicators

The tables below provide a detailed statistical presentation of the performance indicators for the 80 SMEs surveyed over the five years [2008-2012]. They reflect the average of each ratio, and its standard deviation:

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<u>Table (2.)</u>: Descriptive statistics on performance indicators (N = 80) for the year [2008]

Variable	Observations	Minimum	Maximum	Moyenne	Ecart-type
RFP	80	-1,734	5,492	0,264	0,745
PROD	80	-1333088,875	20806130,163	885926,503	2663853,645
PVENTES	80	0,000	39587243,429	2846834,336	5620521,076
PRN	80	-9160740,262	928673,000	-143362,688	1302562,002
RC	80	-2,117	4,890	0,049	0,663
INVES	80	0,000	212,864	5,010	24,154
ENDET	80	0,000	1,517	0,657	0,324
SDETTE	80	0,000	218,794	3,237	24,409
Tx VA	80	-3,468	338,940	4,545	37,632

Source: Our calculations from the accounting records of the companies surveyed.

<u>Table (3.):</u> Descriptive statistics on performance indicators (N = 80) for the year [2009]

Variable	Observations	Minimum	Maximum	Moyenne	Ecart-type
RFP	80	-235,607	1,864	-2,851	26,199
PROD	80	-1660717,071	11200635,566	702987,369	1514769,963
PVENTES	80	0,000	72987498,250	3446630,344	9067066,020
PRN	80	-5659845,935	8887587,706	105080,720	1207900,022
RC	80	-12,526	0,978	-0,279	1,912
INVES	80	0,000	140,008	4,737	16,268
ENDET	80	0,000	1,627	0,702	0,340
SDETTE	80	0,000	94,417	2,633	12,540
Tx VA	80	-11,547	4,935	0,254	1,521

Source: Our calculations from the accounting records of the companies surveyed.

Table (4.): Descriptive statistics on performance indicators (N = 80) for the year [2010]

Variable	Observations	Minimum	Maximum	Moyenne	Ecart-type
RFP	80	-1,849	2,025	0,214	0,507
PROD	80	-1589436,350	16068065,455	904914,316	2148042,065
PVENTES	80	0,000	71692163,615	3576623,501	8918129,544
PRN	80	-2215592,592	3803933,733	162234,001	587501,958
RC	80	-1,197	0,988	0,086	0,304
INVES	80	0,000	175,930	4,601	20,065
ENDET	80	0,000	4,711	0,730	0,549
SDETTE	80	0,000	173,449	3,658	20,761
Tx VA	80	-0,828	9,074	0,484	1,103

Source: Our calculations from the accounting records of the companies surveyed.

Table (5.): Descriptive statistics on performance indicators (N = 80) for the year [2011]

Variable	Observations	Minimum	Maximum	Moyenne	Ecart-type
RFP	80	-4,298	12,739	0,229	1,545
PROD	80	-499530,429	29287504,238	1535051,496	4262413,905
PVENTES	80	0,000	87256710,154	4523582,601	11321252,205
PRN	80	-905084,679	3031705,459	229340,850	549735,597
RC	80	-0,596	12,296	0,279	1,396
INVES	80	0,000	1079,816	24,730	137,773
ENDET	80	0,014	1,713	0,666	0,330
SDETTE	80	0,000	146,073	2,619	16,591
Tx VA	80	-8,209	24,519	0,731	2,938

Source: Our calculations from the accounting records of the companies surveyed.

<u>Table (6.):</u> Descriptive statistics on performance indicators (N = 80) for the year [2012]

Variable	Observations	Minimum	Maximum	Moyenne	Ecart-type
RFP	80	-41,685	48278,158	603,321	5363,840
PROD	80	-818742,250	25837235,690	1233192,454	3305341,774
PVENTES	80	0,000	47060628,647	4460322,895	9113499,540
PRN	80	-2197807,500	5349918,353	206105,543	805370,631
RC	80	-2,012	0,870	0,023	0,388
INVES	80	0,000	1750,690	23,971	194,314
ENDET	80	0,012	1,694	0,676	0,337
SDETTE	80	0,000	25,172	0,607	3,012
Tx VA	80	-0,488	20,159	0,681	2,252

Source: Our calculations from the accounting records of the companies surveyed.

- Analysis of "return on equity"

The profitability of equity increased during the period studied, comparing the two years 2008 and 2012, 0.26 and 603.321, as recorded averages. On the other hand, this indicator recorded a negative rate in 2009, and "-2,851" with a standard deviation of "26, 19", whereas positive and almost similar rates during the years 2010 and 2011, with successively 0,214 and 0,229 as averages recorded.

For companies active in the food industry, this performance indicator experienced almost similar rates during the period 2008 and 2011, an average of 0.18 in 2008, and 0.175 in 2010, so an evolution was noted in 2012, an average of 0.9.

On the other hand, the "Buildings and Public Works" sector recorded a positive average rate of return on equity during the five fiscal years studied [2008, 2009, 2010, 2011, and 2012], so 0, 24, 0.25, 0.19, 0.16, and 0.13. Then, the import export sector presented a negative rate in 2009, an average of (-0.25) explained by negative rates recorded by the two companies C3 and C6. This sector recorded a high rate in 2012, an average of 0.77.

- Analysis of "commercial profitability"

Commercial profitability recorded almost similar ratios in 2008, 2010, and 2012, respectively 0.049, 0.086, and 0.023 as the average recorded. Then, a negative rate was recorded in 2009, that is (-0,279).

The "Buildings & Public Works" sector recorded low and negative commercial profitability in 2008, 2009 and 2012, respectively; (-0.063), (-1.31), and (-0.061). The Import-Export sector then reports positive commercial profitability in 2009, 2010, 2011, and 2012, respectively (0.07), (0.04), (0.04), and (0.06) as averages. According to these results, it is likely that the companies surveyed in Oran are not yet able to significantly improve their commercial profitability.

- Analysis of the "value added rate"

The value added represents the ratio between the added value created by the firm and its turnover. This indicator shows overall positive rates in relation to all the sectors of activity, and this during the period studied: [2008 - 2009 - 2010 - 2011- 2012], ie respectively; "4.545", "0.254", "0.484", and "0.731" and "0.681", with a standard deviation of "37.63" in 2008, and "2.25" in 2012.

- In fact, the "Buildings & Public Works" sector and the Import-export sector reported positive value-added rates during the five study periods [2008-2009-2010-2011-2012], with a clear progression in successive years, between "0.17 in 2008, and 0.34 in 2012" for the BTPH sector, and "0.072 in 2008, and 0.132 in 2012" for the Import-export sector.

- Analysis of "productivity"

Productivity is a performance ratio that measures the ratio of value added to the number of employees. This indicator had positive values during the five years studied, and a clear evolution between [2009] and [2012], respectively 702 987.369 and 1 233 192.454 as calculated averages.

Thus, the BTPH sector recorded a positive productivity, an increase of 387,228 and 836,734 as average respectively recorded in 2008, and 2012.

- Analysis of "productivity of value"

Value productivity is the ratio of the net result achieved by the firm to the number of employees. This indicator recorded a remarkable evolution between 2008 and 2012, respectively (-143,362, 688) and (229,340, 850), as calculated averages.

The Building Materials sector, the "Steel, Metal, Mechanical and Electronic Industries (ISMME)" sector, and the "Wood & Paper" sector, the Chemicals, Plastics & Pharmaceuticals sector, as well as the Leather, skins & shoes sector , the "Buildings & Public Works" sector, the "Buildings & Public Works" sector, have indeed recorded positive productivity during the five study periods [2008-2009-2010-2011-2012]. Thus, the Importexport sector reported an average productivity of the negative value in 2008, explained by a net deficit accounting profit declared by the company (C.6.).

- Analysis of "sales productivity"

Sales productivity is a performance indicator that represents the ratio between turnover and the number of employees. Indeed, this indicator recorded positive values, thus an overall progression during the surveyed period [2008 - 2012], respectively "2,846,834,336", and "4,460,322,898" as averages calculated and recorded in relation to the sample surveyed (80 SMEs).

- Analysis of "investment expenditure"

Investment expenditures represent the ratio between the level of investments and the level of sales. Notwithstanding the limitations observed in the credit and production financing market, which are indeed major obstacles at present, the investment results are convincing. As a result, firms appear to have reacted strongly to increase the level of

investment since this indicator grew between [2008] and [2012], namely "5.010" and "23.971" as general averages.

Analysis of "debt ratio" and "debt structure"

Finally, a negative note concerns the evolution of the level of indebtedness during the period [2008-2010], since an increase is observed for the two measures of indebtedness, namely the structure of the debt by recording "3,237" in 2008, and is "3,658" in 2010 (tables above), as well as the debt ratio, recording respectively "0.657" in 2008, and "0.730" in 2010. This ratio indeed declares standard deviations almost similar during the five years studied.

Conclusion

This work constitutes the empirical instrument for bringing operational declinations to the central question of our work. It focused on the analysis of the performance of SMEs at the level of a given sector, in terms of performance indicators taken into consideration. In order to address this issue, and based on a sample of 80 SMEs from the sectors of Manufacturing, Buildings & Public Works, and Foreign Trade, we conducted a comparative analysis using statistical inference. Also, the data of these companies are collected for the period [2008 - 2012].

It was in fact, dealing with a range of performance indicators namely; (Return on Equity (RFP) (Financial Profitability), Business Profitability, Value Added Rate, Productivity "PROD", Productivity Value "PRN", Sales Productivity "PVENTES", Productivity Investment "INVES", and the debt ratio "ENDET", as well as the debt structure "SDETTE").

Finally, we found "a diversification of performance by sector"; that is to say: "the nature of the sector of activity determines the characteristics of SMEs in this sector", since these entities are subject to the same institutional obstacles and environmental problems at the level of the same sector, thus limiting the promotion of their performance, and the achievement of continued competitiveness. As a result, they are struggling to survive in order to improve their value, financial and technical productivities. They have a dual challenge from the outset, that of evolving in a still unstable local environment due to the unfinished economic transition, and having to find a place in a now global environment. Indeed, they constitute a major challenge for those considered for a long time as "the poor relation of economic development policies (Madoui, M, Boukrif, M, [2009]) Indeed," they are not able to do foreign competition for goods and services in the domestic market, or to acquire substantial shares in foreign markets. This is why the transition of SMEs from a

protection situation to a liberalization situation could not operate without supporting actions in favor and their support structures "(Daoud, S, [2010]).

With this in mind, it should be noted that "support policies for industries should no longer be conceived in terms of resources only but also in terms of political attention, interministerial coordination and consultation with economic operators. Measures on legislative amendments and / or reforms are needed to give impetus to the regions in the process of conversion, thus taking into account the political and institutional context becomes a priority action for action in the short term. The priority is to address the institutional issues that underlie the most severe constraints facing industries, "said Chettab. N, Benabdallah. Y, and Silem, [2013].

And as confirmed by Bukhari. M, [2009], "The development of the SME / TPE fabric requires a stable environment where the institutes of the market economy function effectively, but also a public policy that can guide the development of SMEs / VSEs in Algeria and this by offsetting the undesirable effects of the market economy".

Finally, we believe that new actions must be initiated by the Algerian public authorities; on the one hand, to bring more small and medium-sized enterprises up to level since faced with such challenges, competitiveness asserts itself as a major opportunity allowing Algerian companies to assert their brand image, if not strictly to survive in the local market. And on the other hand, to achieve a certain degree of competitiveness and performance that will enable them to cope with the establishment of the FTA with the European Union, which this phase of transition of the market economy requires the These entities and their human resources have the necessary adaptations to the new changes, and particularly economic ones.

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