Financial difficulties and challenges of small and medium industrial enterprises

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Abstract

This article aims to analyze the particularities of SMEs, by dealing with the interaction between the challenges and the strategic and financial difficulties encountered on the one hand, and the levels of performance by branch of activity on the other. The presentation of the results of a survey of a group of industrial SMEs in the city of Oran spread over seven branches of activity. Indeed, several endogenous and exogenous actors attribute this situation to the lack of knowledge of the main factors that determine the competitiveness and performance of these companies. This leads to a misreading of their difficulties and an overlapping of measures for SMEs.

Key words: industrial SME, analytical indicators, manufacturing, performance level.

Introduction

The concept of "Performance Has become an imperative for the survival of businesses, especially small and medium-sized enterprises as well as a response to the range of perspectives on the functioning of the economy, and even more to the structural changes that are transforming the economic regime. For those, in the industrial sector whose performance becomes a major challenge facing all these vulnerable entities. We approach to the
presentation of a literature review on the theoretical basis of the "Business Performance". Among other things, the interrogation giving reason to this paper is formulated thus : What is the link between industry, SMEs and performance?

Indeed, researchers are often interested in the study of how big business, which has generally colossal funds, as well as significant resources to develop and apply management concepts that can improve steering and performance. On the other hand, some research work has made it possible over the past few decades to learn more and to focus on the characteristics and functioning of SMEs in specific fields. Like strategy, entrepreneurship, technologies etc. (Chaston and Mangles, [1997]; Gelinas et al, [1997]; Kotey and Meredith, [1997]; McMahon and olmes H, [1991]; Chicha et al, [1990]; Gul, [1991]). With this in mind, Bergeron. H, [2000] considers that "research is almost non-existent in the context of studies of performance indicators in SMEs".

In other words, the performance measure is not standard, it varies, inter alia, from one organization to another, from one context to another (Luthans and Stewart, [1977], Bamberger, [1979 ] ). Its appreciation is different (Campbell, [1977], Cameron and Whetten, [1983]) according to the objectives and the privileged perspective of the evaluator. For Fadil. N, [2005], the performance measure is retained by an influential decision-making center judged by the researcher as the key element in the functioning of the organization. In other words, the relevant indicators for its assessment depend on the preferences and values of the people in the decision-making power (Ged, [1983], Kalika, [1995]).

1-The notion of performance

Business performance is a central notion in management sciences. Since the 1980s, this concept has been the subject of many theoretical controversies. Indeed, many researchers have endeavored to define it (Bouquin, [ 1986 ]; Bescos et al, [ 1993 ], Bourguignon, [ 1995 ], Lebas, [1995], Bessire, [ 1999 ] ).

In fact, this concept is today generating enormous passions and sharp controversies in the field of managerial thinking. It appears as a notion dependent on the disciplines or schools of thought to which the authors belong, as well as the criteria and perspective of analysis chosen, each of which approaches it according to an angle of attack of its own. This made the understanding of this concept quite ambiguous.

Taking the notion according to a polysemic character, Bourguignon, [2000] defined the performance of the company by : "The achievement of organizational objectives regardless of the nature and variety of these objectives ». In fact, this realization can be understood in the broad sense of the term (process leading from action to result) or in
the strict sense of the term (result). Thus, the nature of the objectives and their varied nature make it difficult to set up a uniform measure (Ondoa Henri A, and Thierry Y, 2012).

For example, Miller and Toulouse, [1986] integrate the strategy, structure, decision-making style and personality of leaders into performance appraisal. They define these indicators in the following way: the strategy corresponds to the different generic maneuvers in the sense of Portern, [1981]; the structure more or less rigid, allows to meet the objectives of the company; management style in the sense of Mintzberg, [1973] and Ansoff, [1968]; and the personal characteristics of leaders such as his psychological profile.

Lorino, [1997] claims that , "... is performance in the business all that, and only what, helps to improve the value-cost combination, to improve the net creation of value (on the contrary, is not necessarily performance which contributes to lowering the cost or increasing the value, in isolation, if it does not improve the value-cost or the value / cost ratio) ... is performance in the company all that, and only what, contributes to achieving the strategic objectives ... ". On the other hand, Charreaux, [1998], argues that the company's performance falls within the framework of the classic competition repository. It is a question of knowing if the firm knew how to create value or if it is able to create more than its competitors on a given horizon. Villarmois, [1998] distinguishes two dimensions of performance: an objective dimension of economic type (efficiency) and systemic (sustainability of the organization) and a subjective dimension at the same time social (human resources) and societal (legitimacy of the 'organization).

2-Basis of the main analysis :

Followed by the statistical description of the data and the different variables, explained in the previous section, this section consists in empirically test our main hypothesis, characterizing the performance of the 64 Oran SMEs surveyed in terms of branches of activity. And that, by analyzing the increase of their profitability, the reinforcement of the growth of their activities, the improvement of their productivity, the stimulation of their additional investments, as well as the financing costs by a decrease of the level of indebtedness.

In order to meet this objective, an analysis of the main components will be used; will present at first the principle of factor analysis principal’s components (ACP), and we analyze the results of application of the technique of PCA on our database.

3-Description of the sample

In order to study the peculiarities of the performances of industrial SMEs in the wilaya of Oran, we have chosen 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 the industries of Wood and Paper;
- As well as private companies activating in the Buildings and Public Works sector 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;
- Companies with a salaried workforce <250;
- Companies with at least five years of activity.

This empirical study covers a group of 64 turning in the industrial sector and thus having the majority of the population surveyed, shared in seven (7) industries; Food industry (A.A.), Chemical & Plastics and Pharmaceuticals (A.C.), Textiles (A.F.), Wood and Paper Industries (A.E.), Leather, Skins & Shoes (A.G.), ISMMEE (A.D.), and Building Materials (A.B.). The following table presents the detailed breakdown of the companies surveyed by branch of activity:

**Figure (1.) : The distribution of SMEs surveyed by industry**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.A</td>
<td>17</td>
</tr>
<tr>
<td>A.B</td>
<td>15</td>
</tr>
<tr>
<td>A.C</td>
<td>14</td>
</tr>
<tr>
<td>A.D</td>
<td>6</td>
</tr>
<tr>
<td>A.E</td>
<td>5</td>
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<tr>
<td>A.F</td>
<td>5</td>
</tr>
<tr>
<td>A.G</td>
<td>2</td>
</tr>
</tbody>
</table>

*Source: Personal confection.*

In this sense, it should be noted that we were able to collect the necessary data to calculate the list of variables (9 indicators) of performance for each company in our sample, and on which the economic analysis (Principal Components Analysis "ACP"), Of performance characterization of the SMEs surveyed by branches of activity, was highlighted.

**4-Interpretation and main statistical analysis:**

Our analysis is based on the principle that we must develop and appear geometrically in Euclidean space and small size, the most diverse information contained in a database with digital data's double entry, which, in view of the size or complexity of the painting of our data can not to be synthesized. The fundamental aim
of this method is to provide a numerical image of the set of numerical data which allows a quick glance, to quickly grasp all the elements presented, thus highlighting certain essential facts.

This method makes it possible to group the initial indicators into a limited number of synthetic indicators called factors forming axes that structure the positioning of the individuals-sectors of activity in the performance variable-variable space. In addition to its role of synthesis, this method makes it possible to draw up a typology of the sectors of activity according to their resemblance on the basis of these factors.

4-1-Analyzes for the year 2008

This method makes it possible to represent the original data (individuals and variables) in a space of dimension less than the original space, while limiting as much as possible the loss of information. In fact, the representation of data in small spaces makes the analysis considerably easier. Indeed, the principle of this method is to study the relationship between several variables that number nine in our case. Each Oran’s firms (statistical units), value creation indicators are determined, productivity, debt and investment expenditure s.

4-1-1- Interpretation of the factorial plane composed of the first two axes

Remember that for the ACP, the interpretation of the results is different for the variables and for the individuals.

Indeed, the proximities between individuals refer to similarities of behavior with respect to the variables, whereas the proximities between variables correspond to correlations.

Correlations (see figure s below) between the factorial axes and the initial variables indicate the quality of representation of the variable on the axis. The coordinates of the variables on each axis are equal to the correlations between variables and axes. The stronger the correlation between a variable and an axis (negative or positive), the closer the variable is to the axis. On the other hand, the position of the variables on the chart-chart makes it possible to evaluate the quality of the representation of this variable with respect to the plan and no longer only with respect to an axis.

**Figure (2.)**: Representation of the variable poles j of N (j) in the factor space (1, 2)

Source : From the table of factorial coordinates of the variable points of N (J).
The axes are interpreted from the variables best represented, those whose correlation is close to 1 in absolute value. This plan represents 52.18% of the explained variance. Thus, productivity has "PROD" does not seem very well represented by one axis or the other. However, it is better represented on the plan than the variable "TxVA" which seems closer to axis 1. This is because the variable "PROD" is correlated with both axis 1 and axis 2 while "TxVA" is only with axis 1.

One can also interpret the relations of the variables between them by considering the angles that they do with respect to each other. It can be concluded that the Value Added "TxVA" »Investment« INVES "And Commercial Profitability" RC are correlated with each other. Debt "DEBT" and the Debt Structure "SDESTE" are thus correlated. Besides, Productivity "PROD" and Debt "DEBT" have a negative correlation. So, the debt "DEBT" and Productivity Value "PRN" are not correlated at all. Indeed, a return to the matrix of correlations confirms these interpretations almost as much as we study the main factorial design (Axis 1 / Axis 2). For the other plans, the interpretations would be less obvious.

4-1-2- Joint interpretation of the factorial axes by the individual points i N (I) and the variable points j of N (J)

Invidious points are represented in space factoriel ruled explanatory (four dimensions in our case). As for the variables points is carried out by spraying on factorial designs. We considered the factorial plan consisting of the first two axes "factorial space (1, 2)" :

**Figure (3.)**: Representation of the individuals i of N (I) in the factor space (1, 2)

**Source**: From the table of factorial coordinates individual points i of N (I).

4-2- Analysis for the year 2012

The figure below represents the correlation matrix for the year 2012.

4-2-1- Interpretation of the factorial plan composed of the first two axes The correlations between the factorial axes and the initial variables indicate the quality of representation of the variable on the axis. And as we have already mentioned, if a correlation between a variable and an axis is strong (negative or positive), the more the variable is close to the axis
**Source**: From the table of factorial coordinates of the variable points of N (J).

The axes are interpreted from the variables best represented, those whose correlation is close to 1 in absolute value. Indeed, this plan represents 49.27% of the explained variance. Thus, a Return on Equity Capital "PFP", And the Structure of the Debt«SDETTE» Do not seem very well represented by one axis or the other is however better represented on the plan than the variable "DEBT Which seems closer to axis 2. This is because the variables "RFP", And«SDETTE» Are correlated with both axis 1 and axis 2 while "ENDET"is only with axis 2. One can also interpret the relations of the variables between them by considering the angles that they do with respect to each other. It can be concluded that the Value Added Rate"TxVA »And Investment«INVES» Are correlated with each other.

4.2.2 Joint interpretation of the factorial axes by the individual points i N (I) and the variable points j of N (J)

As already mentioned above, the correlation between the initial variables and the main components retained is represented by the variable map. From Figure (above) relative to the main plane (1,2), the first main axis "1 "Correlates strongly and positively with 3 variables"PROD, PVENTES, and PRN ", and negatively related to three variables"ENET, SDETTE, and RFP ". The main axis "2 "Correlates strongly and positively with 3 variables"TxVA, INVES, and RC " and negatively to 2 variables "RFP, and SDETTE".

Indeed, invidious points are represented in space factoriel ruled explanatory (four dimension s in our case). A s for the variables points is carried out by spraying on factorial designs. We considered the factorial plan consisting of the first two axes "factorial space (1, 2) ":

**Source**: From the table of coordinates of the individual points i of N (I).
The figure above represents the companies in the main factorial plan defined by the first two axes selected. The interpretation of proximities depends on the quality of representation. Indeed, this figure allows the detection of the most explanatory points, that is to say; the most representative SMEs; those that contribute the most to the inertia of the axis. This group is then composed of: (5 companies belong to the food industry« or 29.5% of the entire branch » 1 in the Construction Materials sector « almost 6.66 % of the total industry », 6 in the Chemicals, Plastics & Pharmaceuticals sector « 42.85% of the totality of the branch » 2 in the ISMMEE sector is " 33.33%."

Furthermore, companies whose cosine square s are very low, (of which 10 companies belong to the Agribusiness " or 58.82% of the entire branch " 10 in the Building Materials Sector " almost 66.67% of the entire industry », 8 in the Chemicals, Plastics & Pharmaceuticals sector « 57.14 % of the total industry "4th of ISMMEE sector is " 66.67% »s, 1« a » To the Wood & Paper sector « 2 is 0% of the surveyed SME this branch », Then , 5 in the Textiles sector« 100 of the totality of this branch ».

Finally, SMEs are close s center of gravity, can be considered as means points (including 2 companies owned by the Food " 11.8% of the entire branch » 4 in the Construction Materials sector « almost 26.67 % of the entire industry »), Then 4 in the Wood & Paper sector « 8 or 0% of the surveyed SME this branch », 1« a »To the sector Leather, skins & shoes« 50% of the totality of this branch ". Despite its statistical weaknesses, our study highlighted the following key findings:

**Table (1.) : The distribution of SMEs by level of performance [2008]**

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Low (G1)</th>
<th>Averages (G2)</th>
<th>Performantes (G3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.A.</td>
<td>11</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>A.B.</td>
<td>8</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>A.C.</td>
<td>11</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>A.D.</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A.E.</td>
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<td>3</td>
<td>0</td>
</tr>
<tr>
<td>A.F.</td>
<td>5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>A.G.</td>
<td>1</td>
<td>1</td>
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</table>

**Source:** Our calculations.

**Figure (6.) : Levels of performance [2008]**

**Table (2.) : The distribution of SMEs surveyed by level of performance [2012]**
The surveyed population can be divided into three groups. Indeed, the first group includes in 2008; 44 SMEs, the majority of the surveyed population, thus presenting 68.75% for the year 2008. As for the year 2012, it covers either 49 SMEs or the majority of the surveyed population, thus presenting 69.56%. It can be subdivided into three subgroups characterized as follows:

- The first encompasses the low companies in terms of performance. They are characterized by low financial profitability, low commercial profitability, an average value added rate, and a very high debt ratio that exceeds 70% for the majority. These companies in Oran are not yet able to significantly improve their productivities of value, financial and technical;

- The second consists of loss-making enterprises are with net loss-making results, as well as productivities, value productivities, and negative commercial returns.

- The third consists of s companies can be regarded as defective.

The second group represents the average points, and composed of 12 SMEs, presenting 18,75% of the total number, for the year 2008 and 11 SMEs, or 17.19 for the year 2012. These companies are characterized by a average performance in terms of financial profitability, commercial profitability, as well as investment and value-added rates. However, they have recorded a very high level of indebtedness, which exceeds 80% for the majority.

The last group is in a situation of development and excellence, and constitutes the minority of SMEs (8 SMEs with 1 2, 5% of the totality identified, that for the year 2008) and (4 SMEs with 6, 25% of the totality identified) It encompasses businesses say: "performing" recorded satisfactory conditions business and financial expressed by strong commercial profitability, and seem to be very good in

<table>
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<th>Low (G1)</th>
<th>Averages (G2)</th>
<th>Performantes (G3)</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>A.B.</td>
<td>11</td>
<td>4</td>
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</tr>
<tr>
<td>A.C.</td>
<td>11</td>
<td>0</td>
<td>3</td>
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<tr>
<td>A.D.</td>
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<td>0</td>
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terms of productivity, value productivity and sales productivity, as well as VA and investment rates, with a outstanding debt.

Conclusion

The first group includes the majority of companies industrial. It is thus a majority, and in a situation of passivity and survival. It is thus characterized, for the most part, by financial difficulties, loss of position in their traditional market, and lack of structuring. " The sustainability of these companies is achieved through modernization investments and / or divestments (to limit losses and release new resources or to redeploy to new products or activities) .The heads of these companies are not enthusiastic about upgrading, they are absorbed by everyday problems and are not able to think about the future of their businesses " (Mimoune, 2007). in spite of the growing importance towards policies supporting the Algerian SME / SMI, as well as the dynamics of industrial restructuring, integration, and growth, in terms of institutional framework, regulation, and public aid to promote this economic entity and boost their performance, we can see that the majority of the population of SMEs surveyed remains fragile, and suffer financial difficulties by generating shocking debt levels, and this for all branches of industry.

Indeed, the industrial enterprises, which remain the weakest (with all branches combined) during the two years analyzed, suffer in spite of multiple attempts by the public authorities of the present industrial zones which are in a state of quasi-abandonment. And " for many reasons, they offer no services expected of them, and remain, in practice, empty shells delivered to themselves and without real means (neither legal nor financial) to facilitate the management companies established in their precincts and, even less, to serve as a basis for an effective industrial promotion policy "(IFPE, [2011]) .

These companies represent approximately 50% of the surveyed overall, and are characterized by s financial profitability " RFP "And commercial s low, the rate value added medium s, and productivities of technical, commercial and low value and very high gearing s nt exceeding 70% for the most, and arrives to 98% for some especially those of the Chemistry, Plastics & Pharmacy »And« Construction materials ".

The industrial SMEs of the wilaya of Oran are subject to the same institutional obstacles and problems environmental limiting the promotion of their performance, and achieving continuous competitiveness. They therefore have enormous difficulties in surviving for improve their productivity, financial and technical. They immediately have the dual challenge 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. Thus,
several local stakeholders attribute this situation to the lack of knowledge of the factors that determine the competitiveness and performance of these companies. This leads to a misreading of their difficulties and an overlapping of measures for SMEs.

**Bibliography**


**Articles, and theses:**


1 Associate Professor –A – University of Oran 2 - LARAFIT laboratory.
2 These indicators are: Financial Profitability - Commercial Profitability (RC) - Value Added Rate (TxVA) - Productivity (PROD) - Productivity of Value (PRN) - Productivity of Sales (PVENTES) - Investment (INVES) - Debt indicator (ENDET) - Structure of the debt (SDETTE).
3 This figure is based on 80 SMEs surveyed, including 10 SMEs belonging to the BTPH sector, and another 6 belonging to the " Trade " sector , importing SMEs. On this statistical
basis, we will be content to study industrial enterprises as vulnerable entities in this analysis.