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The Measurement of the Organisational Performance: Case Study of the Economic Public Companies (EPC)

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Abstract: Organization performance stays a central issue for management research and practice. In this study we will try to study the performance of the Algerian Economic Public Company (EPC) which in these days is supposed to be non-competitive. The absence of objective socio-economical studies on the Algerian companies makes it difficult to appreciate their real economical capabilities. With the opening of the Algerian market (WTO, partnership with Europe), are our companies, which most of them have financial difficulties (for bad management or others), able to stand up again and face a fierce foreign competition. Actually, making an"état des lieux" of the performance of our companies is a primordial necessity for their survival and hence the survival of our economy.

Key words: Performance, performance measurement, Algerian EPC

INTRODUCTION

In companies or organizations, the performance measurement is always of actuality for managers. It is of primary importance to translate the strategy into actions and to lead the progression towards the objectives, to provide the manager a feedback of the degree realization of the objectives and to give him more chance to reach them with efficiency and effectiveness. The selection of a particular system of measurement of performance implies consideration of the interdependence between the strategy, the internal and external environment and the determination of the importance of various measures of performance.

The field of application (to borrow the expression from the accounting management) of performance measurements is very vast all sides: the financial, technical or social. In other words, performance measurement must be at the base of any decision related management such as planning, control, coordination and communication and so on. Measurement enables to manage. But the first question deals with the meaning and conceptualization of organizational performance and how it is measured.

The objective of our research is to study the practices of performance measurement in the EPC used during the last years in order to find out the reasons that explain their actual situation and to make a general and precise lighting on the constraints and the assets of the Algerian companies.

Today, the economic sector in Algeria is still characterized by a prevalence of the EPC. These latter constitute 75-80% (except hydrocarbons) in terms of importance of assets (equipments) and employees but they only produce nearly 20% of the national production. Their contribution in the economy remains very weak compared to their importance.

Also the image which offers this sector to the eyes of the observers is that of a sector in complete disaster and in ruin (there are some exceptions, which are the proof that the public company is not predestined to the deficit). This image is supported by the fact that the EPC in their immense majority are financially non-structured and legally non-existent (The statistics give a report on a considerable number of EPE having equity frankly negative resulting from cumulative losses).

Thus it seems that only a reconstitution of equity funds (that the authorities seem for the moment to eliminate) will be able to reverse the situation and to give again life to these EPC and may be a new start. Indeed, our companies since the eighties remained nder financial perfusion from the state for only safeguarding employment and avoiding a social crisis. We will try in this study to answer the general following question:

> Beside all the changes of the national and the international environment and their impact on the EPC, have our companies had (or have) a system of performance measurement (of the economical, social and technical side of the company) which would have enabled them to react and to adapt with these changes?

Many studies proved that performance measurements cannot be separated from their context since the finality of measurement is tied with the use and the usefulness of the performance measurements which in their turn are related to the time and the space where perform the company. Therefore, before to analyze how performance is measured in the Algerian EPC a brief history of the evolution of the EPC is very helpful.

EPC evolution from the independence to today: Since, the economic changes started in 1988, confirmed by the law 901 of April 19th 1990 on money and credit and strengthened by the adoption of the investment code of October 19th 1993, the Algerian economy entered a phase of deregulation. With the Algerian demand to join the WTO and the signature in December 19th 2001of association agreement with European Union, Algeria plans to establish a free exchange area by 2010 in order to seal definitively its economic choice. The adoption of the liberal system is already visible by the opening of nearly all the economic sectors to the private initiative and also to foreign investors. Some sectors that were considered as strategic and largely protected till the 1990's as steel industry, mining and the hydrocarbon (petrol and gas) sectors have also been opened (Algeria Law Journal, 2001).

As a consequence it is noticed some deep transformation especially in the marketing practices, some agreement of joint ventures with foreign companies in different economic sectors and principally the change in the juridical status of the EPE to joint Stock companies (SPA).

Here are the main periods of EPC evolution

1962-1968: This period is marked by the first nationalizations in industry (except hydrocarbons) and by the occupation of the production facilities remained vacant by the French.

1968-1971: Consolidation of the State sector by the creation of national companies of industrial production or commercial monopoly. These national companies, present in all the branches of industry will constitute for the State a means to implement its development strategy.

1971-1979: This period of strong growth will allow a constant development of the public sector by the realization of industrial units by foreign companies within the framework of contracts turn-key and product in hand.

1980-1988: Change in the politics of development; the public investments in industry will drop and the State starts to encourage and be limited to certain sectors only. In 1982, the large public companies that became progressively true "ingerable monsters" are restructured. Considering the load that will represent for the State the public companies often badly managed and overdrawn, the State will be seen in the obligation to reduce the importance of this public sector.

1988-1995: A numbers of reforms give to the company its financial autonomy. The State creates specialized structures called "participation funds", to which it delegates the management of its participations.

1995-2001: In 1995, a new device on three levels: strategic, institutional and operational is put in place. The public companies from now on are subjected without restriction on the provisions of the commercial law and suitable for bankruptcy.

2001 to our days: New restructuration made it possible to transform the public companies into joint stock companies (EPE/SPA) and that removed the supervision of the State, from which the rights were passed to a new institution called trust companies of participations (sociétés de gestion des participations-SGP-in French).

Some definitions

Concept of strategy: The strategy consists in determining the fundamental objectives and goals in the long run of an organization then to choose the modes of action and allowance of the resources which will make it possible to achieve these goals and goals (Chandler, 1962).

Concept of performance: The word performance draws its origins in Latin "performare" and was borrowed from English in XVème century and meant real achievement, realization and results. Indeed to perform means to achieve a task with regularity, method and application, to carry out it and lead it to its achievement in a suitable way (Khemakhem, 1976). The word was introduced in French into the field of the horse-races in connection with the results of a horse. It extended within the meaning of exploit, then of capacity and finally of action (REY, 1993).

The performance is a vague, polysemous concept (Bourguignon, 1995) and ambiguous (Otley, 1999) thus "the performance" is itself is a term which does not have a single definition. Michel Lebas (1991) distinguishes a difference between the performance and performant. The adjective is used to speak about the capacity to achieve these goals in the future, while the performance rather indicates a past result.

A more precise definition is given by Philippe Lorino (Lorino, 1998), who stipulate that … Is performance in the company all that and only what, contributes to achieve the strategic goals… And … Is thus performance in the company all that and only what, contributes to improve the couple value/cost, to improve a net creation of value.

Already in Peter Drucker (1954) in his book, The Best Practice of Management, evoking the performance noted that … but the manager did not succeed if he could not produce economic results, if he did not improve or at least maintain the capacity of the economic resources placed at his disposal to produce wealth.

For Kaplan (1996) you manage what you measure, as for Hauser and Katz (2002) you are what you measure, from this, it appears it is primordial for the companies if they have to survive and to thrive in an environment where information is essential (information era) to measure their performance and use adequate measurement systems, in order to achieve the final goal which is, nowadays, the creation of wealth.

Many Other studies were devoted to performance measurement and different definitions were advanced such as the studies of Bititci (2000), Simmons (2000) and Neely *et al*. (1995).

With the progressive advent of marketing and the strategies of differentiation development, the conditions of success on the market developed. The variable price taking a secondary place sometimes (case of the luxury products), the companies to become competitive must understand in which terms the value they must create for their customers is expressed. The company determines the cost but it is the customer who determines the value i.e. the price (that' he sees fair) that he is ready to pay against his own conception of utility of the products or services offered by the company.

From these definitions it comes out that the performance is thus a problem of effectiveness and efficiency and is also associated with the concept of measurement, of indicator and of systems of performance measurement.

Concept of effectiveness: The effectiveness is the relationship between the results obtained and the laid down objectives. In other words it is the fact of achieving the goal envisaged.

Concept of efficiency: Efficiency is the fact of reaching that objective with a minimum of efforts and costs.

Notion of measure: The performance measure is the description of what can be directly measured. A variable which can be quantitative or qualitative (Example: numbers reprocessing per day) Simmons (2000) gives several characteristics of the measure, which we just quote because of the limitation of the number of pages of this article, thus measures can be: Objective or subjective, financial or non-financial, “lagging” or “leading”, sensitive or not sensitive, critical PKI (Performance Key Indicators) or not critical and finally, measures can refer to tangible assets, or intangible assets.

Concept of indicator: A performance indicator of is what is calculated of the measure of performance. It is a quantified representation (Example: percentage of the reprocessing per day by employee). Is the indicator correctly associated to an actor? This condition, the cognitive or ergonomic effectiveness of the indicator, means that the indicator must be read, understood and interpreted easily by the actor for which it is intended (Lorino, 1997).

Concept of system of measurement of performance: A performance measurement system is a set of measures and indicators derived in a consistent way from the strategy and the capacities of the company. Measures of performance are generally classified in financial measures and measurements non- financial measures.

FINANCIAL MEASURES AND NON-FINANCIAL MEASURES OF PERFORMANCE

Financial measures: The performance financial measures, of accounting inspiration, extracted from the income statement and the balance sheet are explained.

Financial ratios: A first simplistic and comprehensible analysis of the performance can be made using income statement and the balance sheet data and consists of the traditional financial analysis of the various intermediate results: gross margin, added value operating profit, non operating income and net income (TCR of the PCN = income statement).

Another indicator of financial health is the CIF (Capacity of self-financing) which, as its name indicates it, determines the possibilities of self-financing of the company.

Various ratios known as management ratios and structure ratios based on the income statement and the balance sheet are used to approach the economic as well as the financial performance of the company. According to the same principle, it is possible to appreciate the performance of the company using many criteria (according to the levels of the hierarchy) extracted from the accounting data. These indicators are generally calculated in ex post manner.

The Most significant ones in terms of measuring global performance measurement, unit's performance, division's performance or at any level of the company are:

Return On Investment (ROI) and Return On Equity (ROE) and Return On Capital Employed (ROCE)

Return on investment ROE, ROCE: The ROI considers the profitability of the company (project, investment) from the point of view of the investor since it is a ratio of the profit output of the business as a percentage of financial investment inputs. ROI = net income/total liability and can be broken up into

ROI = (net income/sales)×(sales/ passive total)

The formula of the ROI or that of the ROE can be broken up into several other ratios which constitute performance indicators on and for the various levels of the company.

This decomposition is at the origin of the first dashboard of the financial performance.

Many companies still prefer it despite many critics and the superiority of the measures (Fig. 1).

Financial performance measures based on market criteria

Traditional measurements: The ratio Q, proposed by Tobin, This ratio constitutes in its principle a measure of the whole of the revenues anticipated, on an infinite horizon. This measurement is done by bringing back the sum of the values of the titles held by the financial investors (shareholders and creditors) to the amount of the capital which they invested. The value of the invested capital is measured by the replacement cost of the financed assets, generally evaluated from the fixed assets.

Q of Tobin = Value of market (stockholders' equity + financial debts)/Replacement cost of the assets: if the ratio is higher than 1, that means that the profitability secreted by the unit of the credits of the firm and anticipated by the market, is higher than the balanced average cost of the capital.

This ratio was the subject of many critics due to the fact that it does not take account of the immaterial assets in the replacement cost of the assets is difficult to measure (Chung and Pruitt, 1994).

The ratio of marris: The ratio of Marris is based on same logic as Q of Tobin, but retains only the capital directly invested by the shareholders. It is evaluated by bringing back stock exchange capitalization to the book value of the stockholders' equity.

Ratio of Marris = stock exchange Capitalization/Book value of the stockholders' equity: This ratio is an indicator reflecting the growth opportunities. As Hirigoyen and Caby (1997) specify it, the ratio of Marris, Is an indicator making it possible to represent the evolution which the investors have of the company, of its leaders, their choices and strategic perspectives. When this ratio is higher than 1, the company creates value, in the contrary case, it destroys some.

The recent measures of the financial performance based on value created: These recent measures recommended by a number of Anglo-Saxon cabinets are represented in particular by the Market Value Added (MVA) and Economic Value Added (EVA).

- Market value added is defined as the difference between the Market Value of capital invested (MV) (stockholders' equity and financial debts) and the Book value of this same capital VC.

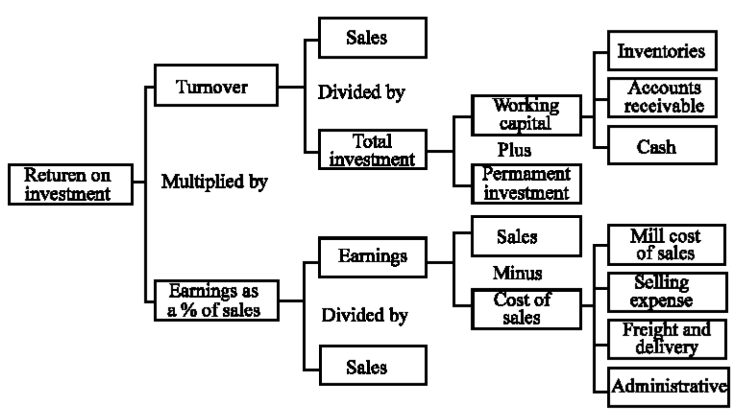

Fig. 1: The du pont return on investment formula

$$MVA = MV\text{-}VC$$

- Economic Value Added is defined as the difference between the net operating profit after taxes (NOPAT) and the Weighted Average Cost of Capital (WACC) follows:

$$EVA = NOPAT - WACC$$

Where,

WACC = K_d (D/(D+E)) + K_e (E/(D+E)).
Kd = Cost of the debts, expressed as a percentage, after deduction of the taxes.
D = Level of the debts.
Ke = Cost of the capital.
E = Level of the stockholders' equity, (price of the action numbers of action).

The Economic Value Added Model (EVA) was developed by Stern Stewart and Co. to correct a common accounting error by explicitly recognizing that when managers employ capital they must pay for it. By taking all capital costs into account, including the cost of equity, EVA shows the wealth created or destroyed by a business for a given period. In other words, EVA is profit the way shareholders define it. EVA helps managers incorporate two basic principles of finance into their decision making. The first is that the primary financial objective of any company should be to maximize the wealth of its shareholders. The second is that the value of a company depends on the extent to which investors expect future profits to exceed or fall short of the cost of capital. By definition, a sustained increase in EVA will bring an increase in the market value of a company.

NON-FINANCIAL PERFORMANCE MEASURES (NFPM)

Over the last few years there has been a significant growth in the interest among managers from all functions in using non-financial performance measures (Atkinson and Anthony, 1997). NFPM, such as customer satisfaction, or process improvement have a variety of characteristics that ought to make them appealing to operational managers. These measures are considered to be leading indicators of financial performance to follow. They can measure events occurring today that drive future financial performance. Such measures provide a longer term focus on the enterprise and as such, serve to reduce the short term or myopic problem created by using only financial performance measures.

PERFORMANCE MEASUREMENT SYSTEMS (PMS)

The performance measurement system provides the structure and the procedures to carry out measurements of performance in a complete and consistent way. It constitutes a formal framework for information and the procedures which the managers use to conclude the routine daily operations and to maintain or change the diagram of the organizational activities (Simmons, 2000). These PMS consist of a multitude of categorized measurements and most of them are market or customer oriented.

Several systems were developed of which most important are (Kashi Balachandran, 2007):

- The Economic Value Added Model (EVA) 1980.
- The Activity Based Costing (ABC) the Activity Based Management (ABM) 1988.
- The Strategic Measurement Analysis and Reporting Technique (SMART) 1988.
- The Supportive Performance Measures (SPA) 1989.
- The Customer Value Analysis (CVA) 1990.
- The Performance Measurement Questionnaire (PMQ) 1990.
- The Results and Determinants Framework (RDF) 1991.
- The Balanced Scorecard (BSC) 1992.
- The Service-Profit Chain (SPC) 1994.
- The Return on Quality Approach (ROQ); 1995
- The Cambridge Performance Measurement Framework (CPMF) 1996.
- The Consistent Performance Measurement System (CPMS) 1996.
- The Integrated Performance Measurement System (IPMS) 1997.
- The Comparative Business Scorecard (CBS) 1998.
- The Integrated Performance Measurement Framework (IPMF) 1998.
- The Business Excellence Model (BEM) 1999.
- The Dynamic Performance Measurement System (DPMS) 2000.
- The Action-Profit Linkage Model (APL) 2001.
- The Manufacturing System Design Decomposition (MSDD) 2001.
- The Performance Prism (PP) 2001.
- The Performance Planning Value Chain (PPVC) 2004.
- The Capability Economic Value of Intangible and Tangible Assets Model (CEVITA™) 2004.
- The Performance, Development, Growth Benchmarking System (PDGBS) 2006.
- The Unused Capacity Decomposition Framework (UCDF) 2007.

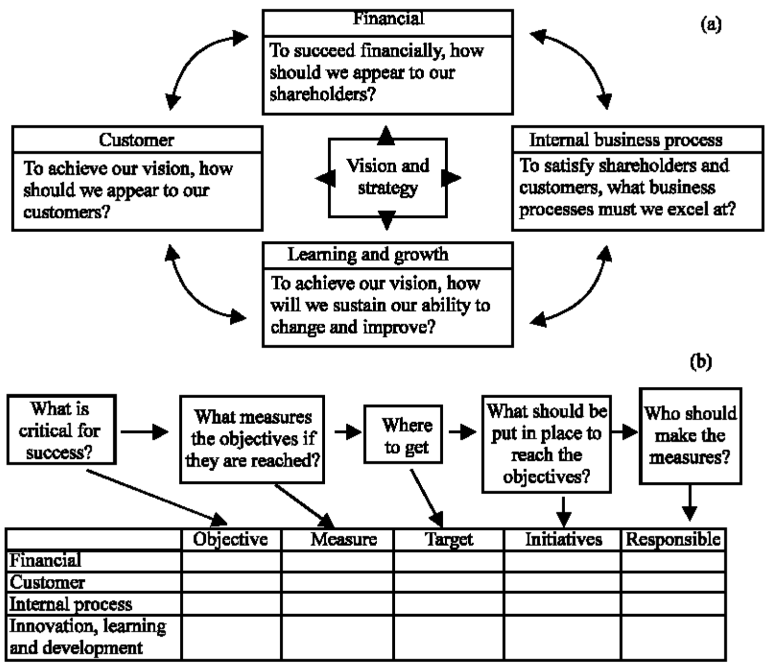

Fig. 2: The Balanced Scorecard the four perspectives, source: Kaplan and Norton (1992)

Each one of these systems has its forces and its weaknesses but can be the system most widely diffused and used is the Balanced Scorecard (BSC) of Kaplan and Norton (1992). The advantage of the BSC is that it highlighted the need for multiple performance measurements and provided a strategic framework which encourages the use of financial and non-financial measurements on four dimensions of management (called perspectives): Financial, customers, internal business processes and learning and growth.

The four perspectives are interdependent and must be in balance and in a coherent way with the strategy of the company. Indeed to maximize a given criterion can be made to the detriment of another where the adjective "balanced" (Fig. 2).

And for each perspective, objectives, measures, targets, initiatives and the responsible can be chosen following the Fig. 2.

To summarize this theoretical part, it appears obvious to us that the management of any organization or company is not any more a problem of management of the performance but a problem of its piloting using performance measurement systems (dashboard) in order to conclude the strategies of the company, to achieve its goals, to carry out the visions of its owners and to satisfy all the stakeholders (partners). For that measures and indicators of the performance and the performance measurement system must be rather comprehensible (for all) to clarify the role of the measurement of performance and must relate to all dimensions and all the hierarchy levels of the company (systemic approach).

The move from the use of ROI to the use of BSC (or other modern PMS) is a complete change in the management theory. A change from moving step by step one thing at a time to a move of all things at the same time in a consistent and coherent manner toward the same objective.

THE CASE OF THE ALGERIAN COMPANIES

Introduction: The object of this present study is not to make a financial analysis of the Algerian EPC but to examine the practices of performances measurement, the performance as well as degree of application of the new methods of performance measurement they use in order to show up the reasons for their actual situation and highlight their strength and weakness, since they became master of their destiny after they are restructured in joint-stocks companies, because the absence of a PMS is today synonymous of bad management.

The first question, which came to mind to everyone, is why the majority of the Algerian EPC have financial difficulties (not to say in bad posture) and the frequently given answer from the different spheres is "it is a problem of management" is it really?.

Research in psychology, state that people, when they have a problem, react and try to solve it, when there is a permanent change, they also react to adapt, so is with the enterprise.

The question in then why our companies did not react in time to adapt to changes?.

Which induces the following others questions:

- Do our companies have adequate strategies within their environment?
- Do our companies have an adequate PMS, which periodically allows a feedback to the managers in order to maintain the course towards the objectives or to correct the tendency?
- What are measurements (financial and non- financial) selected to assess the performance?
- What is their importance for the company?
- What are the ties between these measurements and the strategy of the company?
- Do these measurements constitute a coherent set and allow a balance between the objectives of the company?
- How these measurements are they selected? Is a revision of the measurement system is envisaged when there is change of strategy?

Research approach: Our study is divided in two parts: a theoretical one and a Practical one.

Theoretical approach: In the theoretical part we used a descriptive approach by traversing the existing literature to give a general view on the subject. We thus defined and described, though briefly, the elements of the process of the performance measurement. This constitutes a base to our current study and future developments on the subject.

Practical approach: In this study, we have chosen to approach the companies which we believe are representative according to a number of criteria which characterize the large Algerian EPE and which are:

- A public character: is public company, a company on which the Algerian state can exert a dominant influence because of financial participation or of the rules which govern it.
- Established on the Algerian ground: companies of Algerian right.
- Established since several years and having lived and survived various changes in the national economy to verify their capability to adapt. (as the ex national company)
- An important size (more than 2000 employees).

The companies which satisfied the criteria mentioned are not already numerous and only one small number of them accepted to receive us (question of time!) and the same thing for those which wanted to answer our questions during the interviews (question of confidentiality!) or returned the questionnaire.

The selected companies are those with which we had a discussion with a high level person in charge (CEO or high ranked executives) and those who answered our questionnaire at the same time.

These companies are SONATRACH, SIDER, ASMIDAL and SAIDAL.

For this reason (small sample), we have chosen to undertake an explanatory research. The materials of our research are thus limited to some interviews, questionnaires, accounting ledgers and annual reports. We also used gathered data of 8 companies on the bases of financial statements, final management reports which we had to know by means of ordered interventions for auditing operations, organization or installation of management accounting systems. We will not name these companies.

The study was conducted from January to may 2007. We had several interviews with managers at the headquarters of the four companies cited as well as with managers heads of subsidiaries and production units. The questionnaires and the other data supports were studied simultaneously.

The data-gathering was done using a semi-directing interview where a mixture of more or less (leaving the interviewees go to the details) structured questions was used, including three general questions and others which have a direct tie with the subject and whose answers could explain our concern. The main questions are about:

Branch of industry:

- Size of the company and its activities.
- Objectives of the company.
- The position of the company in its sector.

Performance measurement:

- Presence of PMS.
- The organization of the indicators (dimension, dashboard).
- The objective of the dashboard.
- The hierarchical levels which exploit the indicators or the dashboard.

The choice of the PMS:

- The motivation that explain the PMS choice.

RESULTS

The precarious situation of the Algerian EPC is the resultant of the political system and the economic policies followed by the state since independence: To the main question why the majority of our companies has financial difficulties (not to say in bad posture); from the opinion and the belief of most middle and senior managers is that:

Firstly, the situation is not single to our country. In fact, in the majority of the Third World countries, the economic public companies are in crisis. They operated for a long time within an institutional and legal framework which was characterized by a great complexity at the organic level and a lack of coordination for their supervision (interference from many ministries); legislative and lawful ambiguous texts and a constraining industrial legislation. The State interfered in their current management and thus unbalanced their conditions of operating. The industrial sector is constituted by about twenty big companies through which the state manages and monitors nearly the whole economy (Moussa-Benabderahman, 1990). So the majority of the companies are living a precarious situation which is only the resultant of the political system and the economic policies followed by the state since independence and which made them play a role (much more social than economic) which was not theirs. As examples: a nomination at the head of the public companies people who have from the CEO only the name since the decisions are made from outside the company very often at the ministerial level, a massive recruitment permitted to redistribute the income of oil in the form of wages. A social housing construction, absorb the deficit in housing.

Many facts of this kind made companies a means within the hands of the state to apply its programs rather than being economic agents creating value.

Secondly, this situation gave birth to a feeling of "rentier" (pensioner) at the level of management, a "laisser aller" and corruption at all levels of the hierarchy.

As a consequence, the EPE did not feel the need to set up systems of management control or performance measurement. The finality of these systems was not important since the management at all levels of the company sees himself as a simple executive of state programs. The EPE had the monopoly of importation, of production and distribution of the products for large consumption and the equipment. The prices were administered and there were also the State subsidies…why bother?

This situation is to some extent ascribable to the macroeconomic, political and social environment.

From This context, it resulted for the companies:

- Weak technical performances (low quality products or poor services, raised tariffs, low productivity, over manning and very high costs of personnel, oversize investments).
- Very variable financial performances according to companies.
- A very critical financial assessment (degraded treasury).
- A considerable debt that some of the companies have no possibility to pay back.

At the beginning of the Eighties, under the pressure of World Bank and the IMF third World countries (especially Algeria) are forced in some way to open their markets. Progressively the EPC performance is no more appreciated on social effectiveness as it used to be but appreciated on economical effectiveness and then more and more their performance is evaluated on the same criteria as the private company.

For the questions concerning the implementation of PMS the answer can be given from the analysis of the actual situation of the Algerian EPC.

The modern management control systems and the PMS are not implemented in most Algerian companies: From the study of the Algerian EPC we can classify them into three categories according to their importance:

- The First category contains SONATRACH which is considered strategic and makes the exception.
- The Second category contains companies that are considered important such as SIDER, ASMIDAL and SAIDAL and still have all the attention of the state.
- The Third category contains all others public companies left aside by the state.

This classification was at the base of the restructuration and the reorganizations of the companies and above all t at the base of the willingness of the state to help the companies for a new start.

The first category: Sonatrach: Sonatrach is the Algerian petrol company. It intervenes in Algeria and abroad. Its activities constitute approximately 30% of the GNP of Algeria. It employs 120.000 people. It is qualified as strategic and had always all the state attention since the independence. It is very coveted by the greatest multinationals of the energy sector and the opening of its capital was considered on several occasions but the project is at each time abandoned under the pressure of the political parties.

The study of its PMSs over the years shows that its PMS has always been on top and used the last technology in terms of hardware or software. Actually its PMS includes financial and non-financial measurements touching all dimensions of the company (economic, technical and social) and that through all its subsidiary companies. The indicators of performance vary according to the nature of the activity of each subsidiary company. The group elaborated a system of Management of the Performance and the Remuneration (MPR) which aims at hoisting the competitiveness of the Company at the level induced by the current or to come stakes from the oil sector, by the mobilization and the stimulation of the collaborators for better performances. What induces the choice of the performance measurement and its indicator must have an inciting effect. In this system pay is somehow related to performance.

Today Sonatrach does not conceive an economic development without a sustainable development. It has always adapted the PMS (including a very developed information system) to its needs in management. It uses a very complete ERP which provide measures used to manage at all sides and at all levels of the company. To summarize the SONATRACH management system (Fig. 3).

The second category: This category contains companies like SIDER, ASMIDAL and SAIDAL which are considered important and vital for the country for their structure, employment and activity. They had all the attention of the state to put them on foot and to stabilize them legally and financially before offering them to privatization.

Group sider: SIDER is the iron and steel industry; it comes in second position after Sonatrach in term of importance. SIDER is a joint stock company made up of 24 subsidiary companies of various trades and is in a joint-venture with the giant ARCELOR-MITTAL with a participation of 30%. It currently employs 4.230 people.

In this company, the system of measurement of performance varies from a subsidiary to another according to the activity. Two subsidiaries obtained ISO 9001/2000 certification and are offered besides to privatization. For the rest of subsidiaries there is no PMS as such, the management still use the traditional accounting measures and financial ratios to evaluate just the profitability. In general, there is no apparent change in performance measurement across the company after the restructuration.

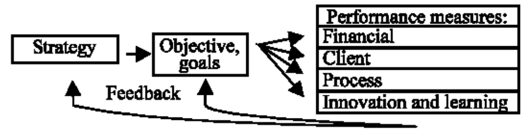

Fig. 3: Sonatrach managment system

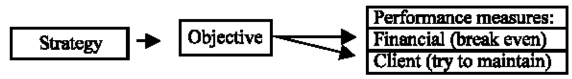

Fig. 4: Performance of measures of finance and clints

Group asmidal: ASMIDAL is a joint stock company specialized in the production, trading and the development of fertilizers, ammonia and its derivatives. It is made up of five subsidiaries. The group try to survive with state subsidies

In order to achieve its strategic development program, which will undoubtedly reinforce its position in the local and Mediterranean level, ASMIDAL plans to resort to potential foreign partners willing to bring in modern technology and know-how as well as financing.

For the measurement of performance the company applies a budgetary control system (drawn by the maximization of production) and limits the analysis of the variations (forecast-realizations) as well as the use of the key indicators such as the amount of sales, the added value, manpower expenses and the final result. Ratios resulting from the financial analysis of the income statement and assessment are as calculated but much more by routine as justified by a need for information for a decision-making. There is no structured PMS. The main objectives are to break even and keeping the actual clients until it finds a foreign partner shown in Fig. 4.

NB: Today, subsidiary company FERTIAL (of phosphate-enriched fertilizers) and ALZOFERT (ammonia) were taken over by Spanish group FERTIBERIA (66% of the capital), subsidiary company KIMIAL (STPP) was taken over by Tunisian group Al KIMIA (55% of the capital) and finally SOMMIAS (maintenance) was taken over by the British group WOOD GROUP (55% of the capital).

Group saidal: SAIDAL is joint stock company and it one of the three companies quoted on the Algiers stock exchange. It produces and markets pharmaceutical products of human and veterinary use. It employs 4293 people. Its vision lies in its capacity to be projected in the future and to ensure the position of a laboratory leader at the levels national and regional while boring the international market. SAIDAL laid down ambitious strategic objectives to reach by 2010.

To evaluate its performance, it produces various indicators touching all dimensions of the company. The well synthesized financial statements provide the adequate financial indicators. And considering the specificity of the activity, it is developed indicators on the processes which are considered important as those relate to the production, the inventory position of the raw materials, the finished products cost and the cost of the products. The systems include also indicators on the key customers (their importance measured in sales turnover, their satisfaction expressed as a percentage and the complaint numbers some by customer) and the same for the suppliers. SAIDAL implemented a very complete ERP. To summarize for this company, it implements in general the same performance framework as SONATRACH. A real metamorphosis in its PMS since the restructuration.

The third category: This category contains majority of the EPC which are of medium and small size transformed in joint stock companies and left to their destiny. Few of them succeeded to improve their financial situation but the majority are still closed or waiting for a buyer.

The only indicators for management are financial indicators extracted from the income statement and the balance sheet such as sales, accounting value added and the final result (profit or loss). Some financial ratios are calculated and generally without any use. As the public companies are not submitted to fiscal control the accounting amounts are manipulated to always show a profit. And managers were aware that we cannot construct a PMS on false amounts or data.

Until now the majority of the public or private companies do not have cost accounting yet.

For the customer perspective, globally there are no measurements. Files of customers (listing) are held and which are used only when it is a question for example of seeking his address to point out to him the time of payment of his credit. Non-financial Indicators concerning the customer such his satisfaction, services after sales etc. do not exist.

The research and development initiated in the years 1980 by ex. National companies and which allowed at a given moment to manufacture spare parts on the spot and to innovate in the manufacturing processes had to stop fault of financial means. No indicator allowing its measurement was given. As regards the formation and training, a lot of money was invested in and allowed for a great number of companies to do without foreign co-operation. But also fault of financial means; they were the first to undergo the consequences.

Except of SONATRACH and SAIDAL and to some extent SIDER and ASMIDAL, performance measurement systems (such as The BSC, IPMF, DPMS, SMART, ECOGRAI etc.) are not used in the majority of the Algerian EPC. The performance measures practiced are principally of financial measurements calculated on accounting data basis.

With reference to the Balanced Scorecard, some measures which concern the perspectives: customers, process, innovation and training, are calculated only when necessary (but are often scattered) and do not constitute in fact elements of a real system of performance measurement.

It is only after the reorganization of the former national companies in joint stock companies (EPC/SPA) that the methods of management started to improve but remain insufficient in comparison to the modern methods of management and PMS. Indeed the companies which could rectify the bar are those which are either in partnership or in joint-venture with foreign companies: case SIDER, ASMIDAL (partnership), SAIDAL (joint-venture) and SONATRACH.

Table 1 summarizes the findings about the use of performances measures by the EPC studied before and after the restructuration of the EPC into joint stocks companies.

In some companies new (old -since the rule to recruit a manager is 10 years experience!) management was installed and modern methods of management were introduced since they have put in place an Enterprise Resource Planning (ERP). But as we now installing an ERP does not change anything if the whole company was not prepared for it in terms of competencies, training and assets. Best practices of management remain difficult to establish fault of the "culture of company or mentality" that took root for a long time.

The Algerian EPC have the means(technologies) and the competencies (human capital) to make a new start provided they are given the necessary financing for this and let work without any interference from the state in their current affairs. Managers should be evaluated on their performances, with clear agreed on strategies and goals. As an example the privatized companies perform very well with the same (or less) means and persons.

Limitations of the study: As there are always difficulties in collecting information on the control of management in our companies, our conclusions must be interpreted with prudence taking into account the nature and the structure of the sample, but also of subjectivity in the evaluation of situation by our interlocutors and also by us. The weakness of the sample remains one of the limits of our study, which we intend to look further into it in future work.

Table 1: Most used Indicators in Algerian companies taking the BSC as reference

	SONTRACH		SIDER		ASMIAL		SAIDAL		Other companies in %(1)	
Measures used	B	A	B	A	B	A	B	A	B	A
Financial measures										
turnover	u	u	u	u	u	u	u	u	100	100
Profit margin %	u	u	u	u	u	u	u	u	100	100
Value Added/capital %	u	u	u	u	u	u	u	u	40	50
Value Added /number of employees	u	u	u	u	u	u	u	u	40	50
Personnel cost / Value Added %	u	u	u	u	u	u	u	u	40	50
Personnel costs/ number of employees	u	u	u	u	u	u	u	u	70	95
working capital- treasurery	u	u	u	u	u	u	u	u	40	50
Variances analysis (budgets)	u	u	u	u	u	u	u	u	10	40
ROI or ROCE	u	u	u	u	u	u	u	u	10	30
Residual income	nu	nu	nu	u	nu	u	nu	u	0	0
Economic value added	nu	nu	nu	nu	nu	nu	nu	nu	0	0
Customer										
Lead time payment (in days)	u	u	u	u	u	u	u	u	40	60
Lead time delivery(in days)	u	u	u	u	u	u	u	u	20	60
Customer satisfaction %	u	u	nu	u	nu	nu	nu	u	0	10
Customer retaining %)	u	u	u	u	nu	nu	u	u	0	10
Internal processes										
Production/productive equipment %	u	u	u	u	u	u	u	u	40	60
Materials used/production %	u	u	u	u	u	u	u	u	40	60
inventory turnover (in days)	u	u	u	u	u	u	u	u	40	60
Leading and growth indicators										
Employee turnover %	u	u	u	u	u	u	u	u	40	60
Employee satisfaction%	nu	u	nu	u	nu	u	nu	u	20	05
Training:%training expenses/total revenue	u	u	u	u	u	u	u	u	20	05
Implementation ERP	u	u	nu	nu	nu	nu	u	u	0	0

B : before restructuration to joint stocks companies (spa: sociéte par action), A : after restructuration to joint stock companies(spa: sociéte par action), U: used indicator NU: not used indictor, (1): percentage of companies using the indicator. (Source: own compilation from the study)

A study which seems to us interesting to develop in continuity to this study is the effect of the change of the structure of property, thus the change of the management (following a privatization or a partnership) on the performance of the company, on the assumption that the new management brings only his knowledge in the management sciences which would support our assumption or not that the problem of the Algerian enterprises is really a problem of management.

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