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THE CONCEPT OF PERFORMANCE

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Abstract

Despite its frequent use, the notion of performance is rarely explicitly defined, most often, its meaning being considered to be known by default. Studying this issue, we conclude that the performance is either: an excellent result of an action, the result of an action, whether great or not, or the maximum capability. However this is often addressed as a function of two components: efficiency and effectiveness. Taking into account these two components, we propose two analysis matrix reflecting the static and dynamic performance perspective.

1. INTRODUCTION

Despite its frequent use, the notion of performance is rarely explicitly defined, most often, its meaning being considered to be known by default.
According to the Explanatory Dictionary of the Romanian Language performance is "a very good result obtained in sport, in a field of practice, and so on; the best result given by a car, by an appliance, etc." (Breban V., 1980). It is "a prestigious result obtained by an athlete or a team, by extension, special achievement in a field of practice; the best result given by a technical system, a machine, an apparatus, etc" (Stănciulescu A., 2005). A first observation that is released is that explanations distinguish between biological systems performance and the performance of mechanical systems. On one hand, if we consider biological systems, performance is a particularly good result, or a prestigious result, an outstanding achievement and, on the other hand, if we consider the mechanical systems, performance shows capability, potential, capacity, the maximum level that can result, that can be achieved in the case of productive systems or offered when speaking about products- it is a state and not a result. If the meaning is clear in the mechanical systems case, in the case of the biological ones the question is related to the significance of the notions: „especially good", „prestigious" and "special". „Especially good" means „as good as possible, very good", „prestigious" has the meaning of something „that imposes by its size, value, importance, that has prestige, that enjoys appreciations because of its qualities, knowledge, talent,, etc." and „special" has the meaning

of „different from another" or „extraordinary, unusual, distinguished, remarkable" (Breban V., 1980; Stănciulescu A., 2005). If in the case of mechanical systems, performance reflects the maximum, the best result, in the case of biological systems performance is not necessarily the best result, but a very good result - in most cases the result is not well-established, but one loaded with the subjectivity of those who estimate. In terms of subjective assessment, a second observation is released: is it possible that a result considered a very good one to be actually a bad one? As a solution to the subjective assessment we may consider the verdict of time. In this context, the management company is performing in order to achieve a performance, which means obtaining a very good result, confirmed to be so by time. However, this statement raises another question: If the management company does not get a very good result means that it has no performance? So, do we have what to evaluate? In the fortunate position where the outcome is well established it can be considered special if it is superior to assumed objectives, superior to results obtained in the past or superior to others' results.

Another definition translated from one of the most popular English explanatory dictionary explains the term performance as, inter alia, "the proportion / extent that an investment is profitable" or "capabilities of a machine or another product" (Pearsall J., 1999). Expanding, we could say that the management company is performing if he is able to bring great profit or it is useful, noting that the profit does not necessarily translate through a financial plus, meaning a gain, a profit, benefit, or, as they say in political economy transformed form of surplus value - so it can be of various kinds: financial, social, environmental, etc.. Therefore, performance translates into profits - the result of the action, and performance evaluation by considering the accomplished plus.

Given the definitions above, if you transpose the concept of performance in the field of mechanical systems we might consider the enterprise's management performance as the best result it can achieve, the maximum level it can provide. But, in the case of biological systems, the problem of identifying the maximum level appears, which is very difficult to achieve if not impossible, at least in the current state of knowledge. As a solution it might be considered a conceptual level - most likely determined subjectively, given the complexity of biological systems. In this situation, any performance appraisal process would be meaningless if the performance is at ideational level, because it is already established, but it would make sense if the evaluation process should follow the reporting enterprise management reached level, considering the ideational level. Basically, the above said, we have to do rather with an assessment of non-performance and not performance.

So, concluding, we can say that the performance is either:

- The excellent result of an action;
- The result of an action, no matter if it is excellent or not;
- Maximum of capability.

2. PERFORMANCE AS A FUNCTION OF EFFECTIVENESS AND EFFICIENCY

Performance is often seen as a function of two components: effectiveness and efficiency (Dănăiaţă I., 2004; Băileşteanu Gh., 2005; Verboncu I., 135; Niculescu M., 1999; Ionescu Gh., 2001).

Performance = f (effectiveness, efficiency) (1)

Or, simply:

Performance = Effectiveness + Efficiency (2)

For example, we present below some definitions found in the literature:

- Performance "is a great result achieved in management, economics, trade, etc.. that prints features of competitiveness, efficiency and effectiveness to the organization and to its procedural and structural components " (Verboncu I., 2005);
- Performance "is a state of competitiveness of the company, reached by a level of efficiency and productivity which ensures a sustainable market presence" (Niculescu M., 1999);
- Performance is to "achieve the goals that you have been given in convergence with the enterprise's guidelines" (Noye D., 2002). Thus, performance is not a simple finding of a result but it is the consequence of a comparison between the result and goal;

- Performance is "the degree of success in achieving the stated objectives" (Devine P., 1979);
- „to measure performance means to asses value, and knowing value means „to translate" performance" (Albu C., 2004);
- Performance is a "measure of enterprise's success perceived by the public" (Callot Ph., 1994);
- Performance is a state of competitiveness (by an economic operator, a manager, etc.) reached by a level of efficiency which ensures a sustainable presence in time (Băileşteanu Gh., 2005).

Observations on efficacy:

- effectiveness is the extent to which an action, an activity carries a definite purpose, by purpose we understand the anticipation towards which actions are directed, a proposed goal to be reached, a possible state toward which an agent tends to;
- assessing effectiveness is closely related to defining the purpose, as such it should be a rational choice and potentially achievable. The purpose can be attached to the feature of rationality only when it was settled on the concrete potentialities of the agent (means broadly understood, available);
- achieving partial success does not guarantee the final aim. Partly effectiveness is a necessary condition but not sufficient;
- total failure is caused by partial failures;
- a partial error does not necessarily mean a total failure;
- failure to achieve the ultimate goal does not involve partial failure of purposes;
- the non action short time intervals (relative to purpose) are as unproductive as partial ineffectiveness, because although we do not depart from the goal achievement, it doesn't approach us either. Doing nothing towards achieving the goal means not taking advantage, which in terms of efficiency also means loss (inefficiency through non-action);
- if the goal was reached in the time allowed and with the allocated costs, it means that there have been no anti-effective actions to delay or impede the achieving of the goal;
- in relation to the purpose, indifferent action is neither practical error (failure) nor success because it does not suppress or remove the goal and it doesn't approach or realise the purpose neither.

Observations on efficiency:

- For an agent (manager, company, etc.) is not only important the extent to which they realize the goal, but the effort to achieve that goal. The economic category which considers both aspects is the efficiency, which is often regarded as the ratio of all useful effects (results) and total effort (cost).

$$\text{Efficiency} = \text{Effect} / \text{Effort} \qquad (3)$$

The higher the ratio is, the greater the efficiency is. As such, we can say that an agent increases its efficiency if: it minimizes the effort - costs; he maximize their positive effects; optimizes the effects and efforts by the effects of higher growth compared to growth efforts; optimizes the ratio between effects and efforts by a lower decrease of effects than the decrease of effort. From the point of view of the relationship between the efficiency and effectiveness, we can see that if in the first three cases the improved efficiency is accompanied by an increase in efficiency, in the fourth state the improvement of efficiency is accompanied by a loss of efficacy.

- achieve total success is not compatible with partial failures. Any partial ineffective action compromises total efficiency;
- increased efficiency does not have to be accompanied by a loss of efficacy;
- increased effectiveness may be accompanied by a decrease in efficiency;
- a system is effective when major imbalances do not occur;
- an economic system is efficient when it does not assault the natural and social environment (which are adjacent purposes and necessary to economic ones);

2.1 Approaches concerning effectiveness and efficiency

Analyzing approaches on the effectiveness and efficiency we can draw many ideas:

Table 1. Performance, effectiveness and efficiency

Criteria	PERFORMANCE	
	EFFECTIVENESS	**+ EFFICIENCY**
As a result	Extent to which the expected effect produces The extent to which the goal is achieved	The ratio of all useful effects (results) and total effort (expenses) - the higher the ratio is, the greater the efficiency is
As action	What must be done – things that must	Be done properly
As attribute	The attribute to produce the desired effects, expected	The attribute to produce more favourable effects

Observations: there are approaches according to which, in our opinion, performance is confused with effectiveness or with efficiency, to the extent that it is not considered only a special result:

1. effectiveness coincides with the efficiency (Breban V., 1980; Stănciulescu A., 2005) – according to the Explanatory Dictionary of Romanian language „effectiveness" means „efficiency" and „efficiency" means „effectiveness". Moreover, effective means "that gives a positive result"

Performance = Effectiveness = Efficiency (4)

2. effectiveness component of efficiency (Gh Băileşteanu, 2005) - implies that an activity is more efficient when is more effective, with the lowest costs (effectiveness is seen as an effect, result):

Performance = Efficiency = f (effectiveness, costs) (5)

Regarded as a report, in this case, the performance seems to be rather "efficient effectiveness", that is an indicator of efficiency

Performance = Efficiency of efficacity = Effectiveness / Costs (6)

Conclusion: performance measurement coincides with the measure of efficiency.

3. effectiveness of efficacy - we have such an approach if we consider that the effectiveness, achieving the goal requires by default a certain level of efficiency inseparable:

Performance = Effectiveness (7)

Conclusion: performance measurement coincides with measuring of effectiveness.

	Effectiveness below the minimum acceptable (Inefficiency)	↔	Maximum of Efficiency
Effectiveness below the minimum acceptable	**NON-PERFORMANCE**	**NON-PERFORMANCE**	**NON-PERFORMANCE**
(Ineffectiveness) ↕	**NON-PERFORMANCE**	**PARTIAL PERFORMANCE**	**PARTIAL PERFORMANCE**
Maximum effectiveness	**NON-PERFORMANCE**	**PARTIAL PERFORMANCE**	**MAXIMUM PERFORMANCE**

Figure 1. The matrix of performance categories

2.2 Effectiveness, efficiency and performance regarded from a static point of view

According to the condition the variables effectiveness and efficiency have, there are three categories of performance, which we agreed to call maximum performance, partial performance and non-performance.

We have high performance when effectiveness and efficiency are maximum:

$$Performance_{maximum} = Effectiveness_{maximum} + Efficiency_{maximum} \quad (8)$$

We have *non-performance* when:

- the aim was not achieved, and this was a prerequisite:

$$Non\text{-}performance \rightarrow Effectiveness_{realized} < Effectiveness_{minimum} \quad (9)$$

- efficiency was not achieved in the minimum acceptable condition:

$$Non\text{-}performance \rightarrow Efficiency_{realized} < Efficiency_{minimum} \quad (10)$$

- neither the purpose nor efficiency were achieved although these were mandatory requirements (particular dramatic case, circumscribed to first two):

$$Non\text{-}performance \rightarrow Effectiveness_{realized} < Effectiveness_{minimum} \; \& \; Efficiency_{realized} < Efficiency_{minimum} \quad (11)$$

We have *partial performance* when:

- achieving the aim and effectiveness are both desirable and are both achieved only partially, but not below a certain level considered minimum:

$$Performance_{partial} = Effectiveness_{partial} + Efficiency_{partial} \quad (12)$$

with the condition:

$$Effectiveness_{partial} > Effectiveness_{minimum} \; \& \; Efficiency_{partial} > Efficiency_{minimum} \quad (13)$$

- achieve the purpose is obligatory and it is realised, and efficiency is desirable:

$$Performance_{partial} = \text{Effectiveness}_{maximum} + Efficiency_{partial} \quad (14)$$

with the condition:

$$Efficiency_{partial} > Efficiency_{minimum} \quad (15)$$

- efficiency is mandatory to realise and the aim is desirable:

$$Performance_{partial} = Effectiveness_{partial} + Efficiency_{maximum} \quad (16)$$

With the condition:

$$Effectiveness_{partial} > \text{Effectiveness}_{maximum} \quad (17)$$

2.3 Effectiveness, efficiency and performance regarded from a dynamic point of view

In terms of dynamic, performance increase is made either by increasing the effectiveness or efficiency or by increasing both.

If:

- Δ *Effectiveness* / Δ *Efficiency* < *1*, performance increase is made mainly through efficiency.
  The results increase more than results-cost ratio. It corresponds to situations in which goals are achieved at a higher level due to a better use of resources – results grow faster than the means to achieve them;
- Δ *Effectiveness* / Δ *Efficiency* > *1*, performance increase is made mainly through efficiency.
  Increased results-cost report is superior to the growth of results. It corresponds to situations in which costs are reduced due to goals achievement at a similar level or slightly higher;
- Δ *Effectiveness* / Δ *Efficiency* = *1*, performance increase is realised both by increasing efficiency and by a corresponding increase in efficiency.

In terms of dynamics, if the effectiveness and efficiency evolve backwards questionable situations arise that can be viewed as either increasing or decreasing the performance.

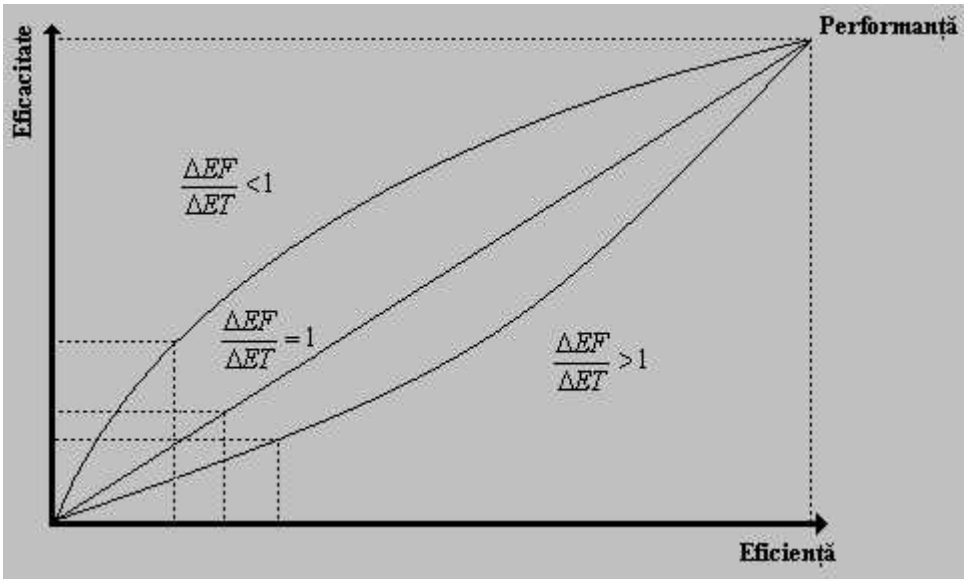

Figure 2. The elasticity of efficiency / effectiveness

		Effectiveness: decrease	Effectiveness: Increase
Efficiency: decrease		**I NON-PERFORMANCE/ PARTIAL PERFORMANCE (performance decreases)**	**III PARTIAL PERFORMANCE (possibly the performance increases)**
Efficiency: increase		**II PARTIAL PERFORMANCE (performance decreases)**	**IV PLUS PERFORMANCE (performance increases)**

Figure 3. The matrix of the effectiveness and efficiency dynamic possibilities

- Frame I: a decrease in the effectiveness and efficiency translates into a decrease in performance. Depending on the situation, it goes from a state of non-performance or partial performance;
- Frame II: a loss of efficacy accompanied by an increase of efficiency results in a decrease in performance. This is where increased efficiency is due to an inferior decrease of effort compared to the decrease of efforts. Goals are achieved at a lower level, but with disproportionately fewer resources;
- Frame III: an increase in efficiency accompanied, however, by a decrease in efficiency translates into a possible growth of performance, insofar as the decreasing efficiency does not irremediably affect the future efficacy- to the extent that efficacy growth is not a sustainable one;
- Frame IV: an increase in the efficiency and effectiveness translates into a performance gain.

Our approach assumes that achieving the aims takes precedence over how these are achieved. Therefore, decreased effectiveness accompanied by increased efficiency or increased effectiveness but decreasing efficiency is considered decreasing performance or performance increase. But, in order for these considerations to keep their validity, future consequences must be taken into account- present actions should not affect the level at which it is reached the purpose in

the future. Another approach, apparently more theoretical than practical, would be the positioning of performance increase or decrease depending on the weight that increases the efficiency and decreases the efficiency, respectively the effectiveness increase and efficiency decrease.

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Biography

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