The Influence of Leadership on Organization's Level of Competitiveness[1]

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Abstract

While it is true that competitiveness is a performance result and such an approach should be taken into account, we should also think about competitiveness in dynamics, which means present competitiveness is also a cause, a driver of future performance. Competitiveness is both a result and a cause and therefore it is a controversial issue that requires continuous investigations to consider the permanent dynamics of the involved variables. This paper aims to present a possible model for analyzing organizations' competitiveness in dynamics, by highlighting the important role of leadership[1] as an independent variable that influences the future level of competitiveness.

Keywords: *competitiveness, leaders, leadership, strategy, competences*

JEL classification:

1. The need for a causal model of organizations' competitiveness

Competitiveness is a broad topic with a set of theories I consider to be both interesting and complementary; however, I do believe these theories can be developed furthermore.

In order to analyze the evolution of organization's competitiveness from a time frame t_0 to a time frame t_1, I disagree with the resource-based theory, because, assuming that two organizations dispose of exactly the same resources (practically impossible, yet still assuming that), we can notice that one of them is better than the other. I strongly support this idea and the best argument for this is a strategy game.

If two people play the same strategy game several times, it is usually the same winner every time. The explanation? It can be a greater experience in that game, or just a better strategic approach compared to the other player's approach. It is clear therefore that the strategic use of resources is the most important element,

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and not the resource by itself. However it is important to note that this is the case with approximately equal resources; if there are wide disparities, of course the one with more resources is more likely to win. Obviously, even then, success is not guaranteed. Imagine that you invested at stock exchange in a period not very favorable to this action (the start of the crisis, considering that the share prices will rise after decreasing, which did not happen, even by contrary). And let us consider a friend invested more (ten times more) – this in part because he disposed of more financial resources. It is clear that he lost more than you (success was not at all guaranteed by the fact he had more resources). Maybe it is not the best example, as in most of the cases, organizations with large discrepancies between resources levels cannot be compared at all; a higher level means a different power base and therefore quite big advantages from the very beginning. Yet I wanted to underline the importance of strategic use of resources rather than the resource by itself. This idea has a series of similarities with competence-based competitiveness (Hamel and Prahalad, 1994).

I strongly believe there is need for a causal model. The highest difficulty in building such a model comes from the fact that we generally consider competitiveness is just an effect ("company X is competitive, while Y is not" and we can explain which should be the causes that led to a competitive company and, respectively, to an uncompetitive one). However, competitiveness is not only an effect, it is also a cause.

The biggest challenge is measuring the dynamic competitiveness. If two organizations have at a specific moment in time approximately the same level of competitiveness (measured on a particular scale), their actions will make the difference for the future (competitiveness as a cause or determinant is the same for the two organizations, but competitiveness as a result is different). Strategies should be dynamic, as there are always unpredictable changes in organizations' external environment. It is clear that dynamic strategies require consistent compromise between the economic logic of low cost and the one of differentiation as main factors of strategy. However, dynamic competition is a constant challenge for organizations to continuously improve their actions on the market and often to strive for rewriting the rules (Carpenter and Sanders, 2007). Game theory can partly explain the most appropriate solutions, but uncertainty is high.

2. A model of organizations' competitiveness in dynamics

The model I propose is a dynamic perspective on competitiveness. The basic idea from which I started to build this model is that future level of competitiveness is a result variable that depends on a series of independent variables: current level of competitiveness, organization's current actions (which are strongly related to current level of competitiveness and also depend on competitiveness' potential, on leadership, on organization's competences and on external environment), current actions of key competitors, leadership, organization's competences and the whole external environment. Future level of

competitiveness is the result of a transformation process that takes place depending on all the factors mentioned above.
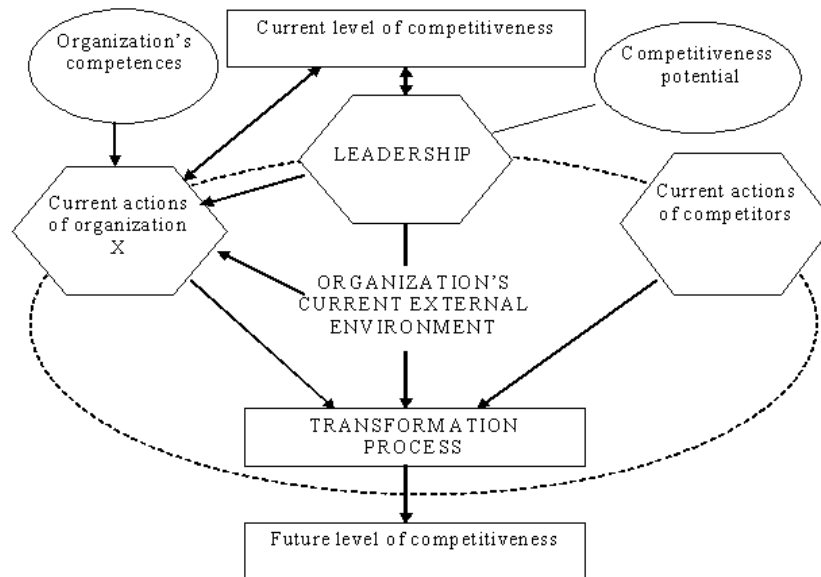
Briefly, the proposed model is the following:

Figure 1. Organization's competitiveness in dynamics

As it can be seen from Figure 1, the model is based on the premise that future level of competitiveness is certainly influenced by current level of competitiveness (as in the resource-based theory). However, a high current level of competitiveness does not necessarily lead to good results in the future, as between the two moments in time there is a transformation process that depends on several factors. These factors are presented in the following two sections.

3. Leadership – a critical variable in the model

Leadership development plays a very important role in the process of organizational transformation that explains the shift from a competitive level to another one. Leadership is seen as "the process of influencing the activities of a person or group of people in order to achieve the organization's objectives (Ursachi, 2005). Organization's leaders should be managers and not other people, in order not to lead to organizational conflicts. Obviously, this condition is not always met.

The considerable impact of leadership on organizations' performance is clear, for instance, in Six Sigma. Six Sigma can be considered, among others, a model of leadership, whereas commitment of business leaders is essential in order

for Six Sigma initiatives not to disappear too quickly (Pande, Neuman and Cavanagh, 2000).

A successful strategy can hardly be formulated by one single person or by a very small group of leaders. Strategic leadership implies involving the right people in critical decisions, because key information may appear very scattered within the organization. In addition, successful implementation of a strategy requires active leadership that is able to identify the necessary changes before being too late.

According to Lyons, there are four conditions to be met for a real leadership development (Lyons, 2007):
1. Obvious differences in power resources (for instance, experience or position) do not limit a person's openness to change;
2. Participants in a transaction are assumed to behave rationally;
3. Motivation to influence others is taken for granted;
4. The target perceives the agent (the one attempting to influence) as possessing attributes and skills to assist the target (the one at whom the influence is directed) to achieve objectives or success.

4. Other variables included in the model

Organization's competences. In this model current competences are an independent variable affecting organization's current actions of the organization and thus its future level of competitiveness.

From the perspective of strategic management, Hitt, Ireland and Hoskisson (2005) define competences as a combination of resources and capabilities. This combination is even a distinctive competence in the case of resources and capabilities that are valuable, rare, difficult to imitate or substitute and exploitable (Barney's VRINE model of sustained competitive advantage, 1991).

Hamel and Prahalad (1990) considered core competences to be portals to future opportunities. A core competence consists of a range of skills and technologies that mean an advantage for the organization from a significant point of view of its customers (Hamel and Prahalad, 1994).

Current actions of the organization and those of competitors. The interaction between them and their interaction with the environment have an impact on the future level of competitiveness. Current actions of the organization are, from this point of view, an independent variable, but they are also in the model a result-variable, depending on leadership, on competitiveness' potential, on organization's competences and on external environment.

External environment. In building the model, this variable was a pretty big challenge, for several reasons. Firstly, it is clear that it is a **very important variable** to be considered (as the organization is an open system). Secondly, it is a **complex variable** (which takes into account many different factors). Thirdly, the main problem this variable creates refers to the fact that it is not exactly an independent variable in this model. Causal relationship between the variables

"external environment" and "current actions of the organization" can be considered of a dual implication (**interdependence**), whereas not only the environment influences the actions of the organization, but also vice versa. However, in the model **current external environment** is an independent variable. Future external environment is a result of the transformation process and it was not subject of the study.

   Transformation process deserves a special attention, as, if carried without care, will negatively affect the organization's level of competitiveness. According to some authors (Bjelland and Chapman Wood, 2008), there are five distinct, reproducible ways of radically altering organizations: the standard model process ("holism"), transformation through the ambidextrous form, transformation through acquisition/restructuring, the Collins "Good-to-great" process, and improvisational transformation process. And there are also the hybrid approaches, which are mixtures between them. Of course, we should not necessarily look for radical changes, although a significant improvement in the level of competitiveness very often requires this. Some change is always necessary and should be implemented. It is true, yet, as Collins and Porras remarked, we cannot omit the fact that continuity is also important (Collins and Porras, 1994). It is absolutely essential not to confound the fundamental vision with strategies, culture, tactics, operations or other unfundamental practices. Of course, in time, cultural norms have to be modified, as well as strategy, production line, objectives, competencies, administrative policies, organization structure and rewarding systems. However, there is a single thing that should not be modified and this is the fundamental vision, the only one that leads to a visionary and therefore excellent company.

5. Research methodology

   The model considers a series of hypotheses (dependence or inter-dependence relationships graphically expressed as arrows in figure 1) that I tested empirically for my PhD study. I developed a questionnaire of 54 questions (a part of the questions related to "Leadership" were also used in the research project "Developing knowledge-based leadership skills in the SMEs' sector in Romania in the context of European Union integration" – project manager: Marian Năstase). The questionnaire was applied in two stages, June-September 2007 and June-September 2009. The aim was to analyze evolution in time.

   Initially 223 questionnaires were distributed to middle-level or top managers from different organizations (80% SMEs). The response rate in 2007 was 56.95% (127 completed questionnaires). Final analysis was limited to only 98 of these organizations – those that appropriately completed the questionnaire in both periods.

   After processing the information received from the 98 organizations, I calculated scores – on a scale of 1 to 10 – for each of the 8 variables considered in the hypotheses.

6. Test of hypotheses regarding the influence of leadership on organization's future level of competitiveness

Leadership influences the future level of competitiveness directly, but also indirectly – it impacts the organization's current actions, which influence the future level competitiveness. It is therefore a very important factor – determinant from two relationships (figure 1).

A problem I faced is multicoliniarity. Multicoliniarity refers to the situation in which two or more exogenous variables are actually strongly correlated with each other, which leads to some problems to multiple regression model (there is an increase in the variance of those estimators of linear regression model's parameters that correspond to the exogenous variables in a linear significant dependence) (Voineagu, Țițan, Șerban, Ghiță, Tudose, Boboc and Pele, 2007). Tables 1 and 2 highlight Pearson's correlation coefficients for the considered variables (Table 1 includes variables that, according to the model, have an impact on organization' current actions, and table 2 includes those that influence the future level of competitiveness).

Pearson's correlation coefficients (1)

Table 1

	Current level of comp.	Tech. Comp.	Human comp.	Comp. pot.	Leadership	Ext. envir.
External environment	0.75	0.56	0.63	0.73	0.57	–
Leadership	0.80	0.55	0.73	0.74	–	
Competitiveness' potential	0.90	0.59	0.77	–		
Human competences	0.86	0.57	–			
Technological competences	0.66	–				
Current level of competitiveness	–					

Pearson's correlation coefficients (2)

Table 2

	Organization's current actions	External environment	Leadership
Leadership	0.74	0.57	–
External environment	0.70	–	
Organization's current actions	–		

Correlation coefficient (Pearson) of two variables can be calculated (Spircu and Ciumara, 2007):

$$\rho = \frac{\sum (x_1 - \bar{x}_1)(x_2 - \bar{x}_2)}{\sqrt{\sum (x_1 - \bar{x}_1)^2 (x_2 - \bar{x}_2)^2}},$$

where: ρ = Pearson's correlation coefficient
     x_1 = values of X1 variable
     x_1 = average of X1 variable's values
     x_2 = values of X2 variable
     $\bar{x}_2$ = average of X2 variable's values

As it can be seen from the two tables, there are quite high correlations between some variables. Some experts say that the problem of multicoliniarity occurs in the case of correlation coefficients greater than 0.90, but there are also others that lower the threshold to 0.75. Table 2 contains values close to this threshold, but none of them exceeds 0.75, while table 1 has four values over 0.75, which means there are some problems. However, multicoliniarity does not hinder analysis by using the classical method; it only causes larger standard errors of correlated exogenous variables (O'Brien, 2007).

Multicoliniarity problem can be solved in many ways. I preferred to use simple regression model several times (for each case in part) with the advantage of a clear analysis and the disadvantage of slightly distorted correlation and error results. I will graphically present the simple regression models for three of the tested hypotheses (those relating to the influence of leadership on organization's level of competitiveness).

H1. Leadership positively influences the organization's current actions. The linear regression is the following:
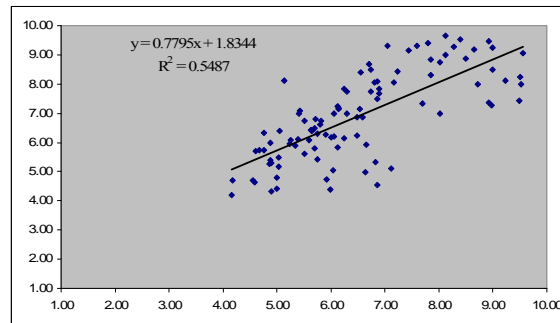

Figure 2. Linear regression – Leadership (independent variable) and Organization's current actions (dependent variable)

The coefficient of determination R^2 is not high (0.5487), but it is good enough for this model.

The Fisher test indicates 116.72 and the materiality is very low ($2.82 \cdot 10^{-18}$), which confirms the validity of the regression model for analyzing the dependence between these two variables (results are only slightly distorted due to multicoliniarity).

H2. Organization's current actions influence the future level of competitiveness – they explain the transformation process from the current level to the future level of competitiveness.

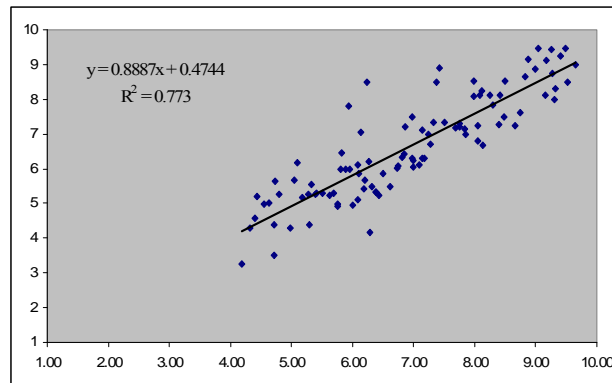The following figure shows the linear regression:

Figure 3. Linear regression – Organization's current actions (independent variable) and Future level of competitiveness (dependent variable)

The coefficient of determination R^2 has a value that can be considered very high (0.773).

Linear dependence relationship between the two variables is strong, as it can be seen from the figure, just a few points being more distant. The high value of F test and the very low materiality show that the model is valid.

H3. Leadership development positively influences the organization's future level of competitiveness.

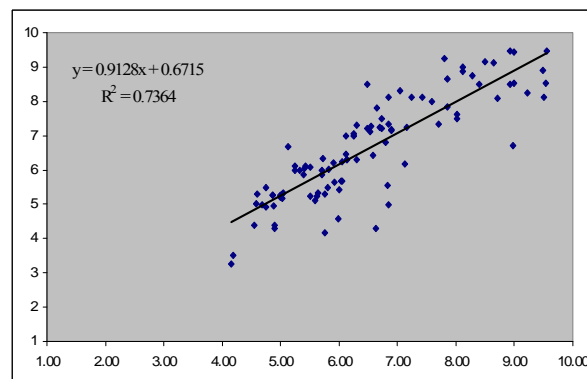This relationship can be seen in the following figure:

Figure 4. Linear regression – Leadership (independent variable) and Future level of competitiveness (dependent variable)

The coefficient of determination R^2 has a high value (0.7364). F-test also has a high value (268.16) and materiality is very low ($1.52 \cdot 10^{-29}$), which confirms the validity of the regression model analyzing the dependence between the two variables.

I mention once more that results may be slightly distorted due to multicoliniarity, but the model has been empirically validated, both for the three hypotheses presented in this paper and for the other relationships represented as arrows in figure 1).

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