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A proposed model for monitoring organizational performance

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Abstract

The paper presents a proposed model for the organizational performance management (focus on the evaluation, analysis and monitor activity) in the context of the actual trends in the field. The proposed framework (model) takes into consideration three organizational determinants: objectives, resources and results. The relation between them defines three important organizational characteristics: efficiency (described in our approach from the perspective of intellectual capital management), effectiveness and pertinence (diagnosis from the perspective of organizational and manager/leader behavior). The proposed model is considered a general one, because the methods and tools, considered for the organizational performance measurement were generally defined based on preliminary observations and reference studies.

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Keywords: Performance; Model; Monitoring; Evaluavion; Analysis; Intellectual Capital; Organizational Behavior

1. Introduction – organizational performance brief overview

Nowadays there is recognized that management analysis, evaluation or assessment can include quite a diverse range of activities, procedures, and professional requirements. Specialists in strategic management recognize that some analyses model are well-structured and have clear, standardized procedures for successful application in real companies, but most of the time models are too complex and need consultants for their use (some models are extended and incorporated into information technology applications that need time and money to be applied in companies). Also, the analysis results often have straight-forward interpretations (Neely, Gregory & Platt, 1995), (Podsakoff, et al. 2003), (Conant, Mokwa & Varadarajan, 1990).

Management analysis models become more relevant and meaningful (and also they are validated) once that they could be applied and confront with the organizational context. Once a management analysis has been completed

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(whether explicitly or implicitly) it helps to have some basis by which to interpret the results for practical application and decision making. Diagnostic models can provide that basis and they could give the direction to improve organizational performance (Podsakoff, et al. 2003).

Based on the reference research the more popular diagnostic models include Classical Theory, Management by Objectives, Balanced Scorecard, Learning Organizations, and Total Quality Management. Each model offers a conceptual perspective for understanding organizational behavior and performance (Cole, 2004), (Locke, 2001), (Reiss, 2012).

Organizational practices have underline that in the case of a particular organization and in absence of any specific or preferred model that is currently applied for the performance measurement (or in the case of the existence of a basic model that used economic and financial analysis, indicators), a generic model of organizational performance (as one described in Figure 1) adopts and applies the principles and concepts of organizational development (on the continuous improvement principles) as well as the criteria used for the Baldrige National Quality Award (Ford, M. W., & Evans, 2000), (Lee, Rho & Lee, 2003). In this case the performance assessments and audits define the system/organization perspective that incorporates the complexities of various dynamic and interacting processes of modern organizations. The model for organizational analysis illustrated in Figure 1 includes two principal domains: planning and execution (Advent Consulting, 2013).

The left side of the model illustrates those functions that primarily are analytical in nature, and fall into the planning domain. The right side of the model consists of deployment (execution) functions. They are more action-oriented than the planning activities, and they usually result from strategic planning and related analytical activities. As systemic elements, however, they also may provide important feedback for the design and analysis of subsequent planning activities (Advent Consulting, 2013). Also, consultants and researchers recognized that human resources and organizational development have access to many frameworks and model for organizational performance analysis and evaluation disposal, but they also need to ensure that essential questions are asked. According to (Linkage, 2013), the proposed framework provides a practical structure for organizational analysis, framing the right questions as focused on each of the five key elements:

(1) *Strategy*: Does my organization know where it's headed (quantitative and qualitative data)?

(2) *Execution*: What are the issues around getting things done?

(3) *Systems*: What is blocking my organization in terms of process, structure, etc?

(4) *Growth*: Where is my organization's growth going to come from?

(5) *Culture*: What does my organization stand for? What type of change is the organization (and its people) currently experiencing? The general tendency of the organizational performance approach takes into consideration different organizational dimensions (customers and stakeholders satisfaction, human resources performance, definition of key performance indicators, continuous improvement, and most economic and financial indicators, all aspects integrated into the strategic management system) (Brudan, 2010).

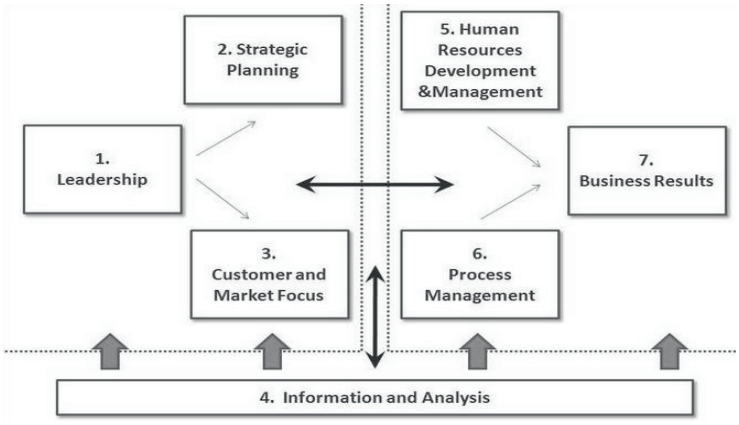

Fig. 1. Overview of Management and Organizational Analysis (Advent Consulting, 2013)

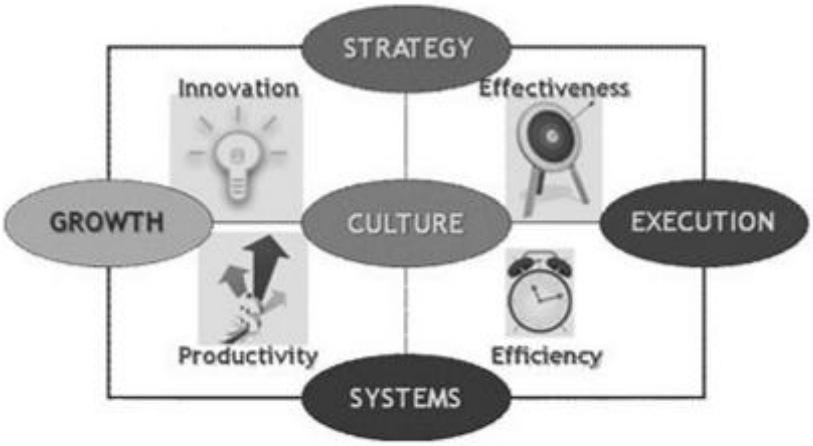

Fig. 2. Organizational performance framework (model) (Linkage, 2013)]

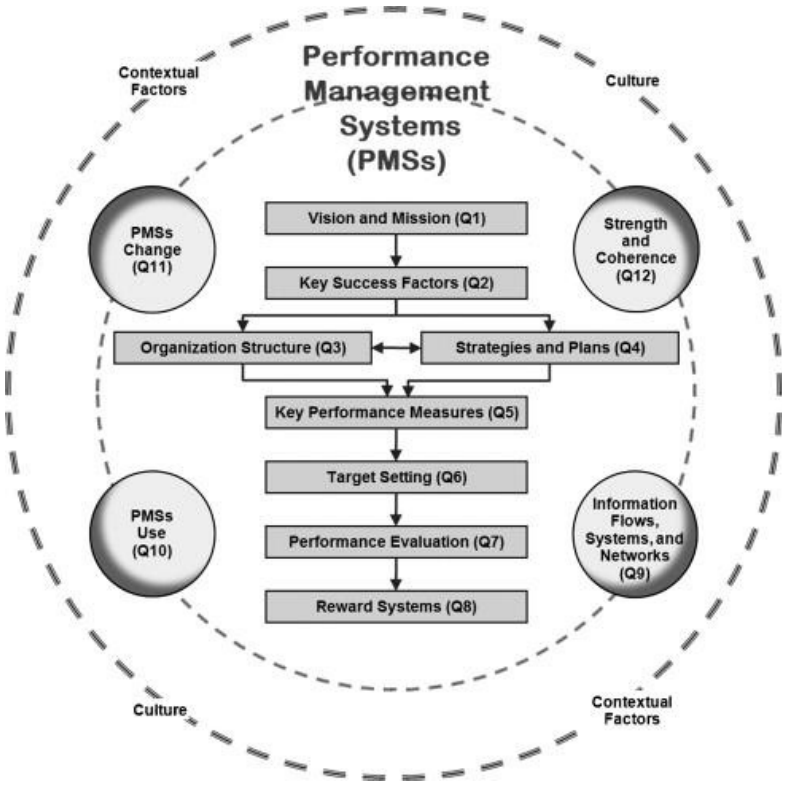

Fig. 3. Performance management system framework (Ferreira & Otley, 2009)

More recently, considering the widespread acceptance of the need to adopt a more comprehensive approach to the study of management control system that takes research beyond specific aspects of control systems, and the limitations of existing frameworks, there have been proposed an extended framework (Figure 3) (Ferreira & Otley, 2009). The extended framework aims to provide a broad view of the key aspects of the performance management

systems (PMS) and to form the basis upon which further investigations can be developed (exploitation of the model). The extended framework represents a progression from an existing model developed by Otley in 1999. The naming of the framework as 'performance management systems' aims to reflect a shift from the traditional compartmentalized approaches to control in organizations, to a broader perspective of the role of control in the managing organizational performance. It also aims to give a managerial emphasis, by integrating various dimensions of managerial activity with the control system (Ferreira & Otley, 2009). In the proposed framework there have been considered that key performance measures are the financial or non-financial measures (metrics) used at different levels in organizations to evaluate success in achieving their objectives, KSFs, strategies and plans, and thus satisfying the expectations of different stakeholders.

The above described frameworks of organizational performance measurement are analyzed by considering their strengths and weaknesses in Table 1.

Table 1. Frameworks of organizational performance measurement

Analyzed framework (relevant cases)	Strengths	Weakness
Management and Organizational Analysis (Advent Consulting, 2013)	It is developed based on the Baldrige National Quality Award (well known and applied model)	Do not consider knowledge management base and approach from the Baldrige National Quality Award; The model exploitation needs a consulting company support as (Advent Consulting, 2013)
Organizational Performance Framework (model) (Linkage, 2013)	It provides a practical structure for organizational analysis; It is a simplest model by its representation; It is related to the Porter strategic model for competitiveness	The model exploitation needs a consulting company support as (Linkage, 2013) - Qualitative and quantitative information results for each question are difficult to merge in a global result; - The framework exploitation need a team of specialists and consulting to be feasible and with relevant results for a company.
Performance Management System Framework (Ferreira & Otley, 2009)	The framework represents a considerably improved tool for describing many important aspects of PMSs design and us; It is based on the interrogative or check-list method	The exploitation of the model is difficult without an information technology application; Qualitative and quantitative information results for each question are difficult to merge in a global result; Full use of the extended framework requires the questions to be asked at the various hierarchical levels down to the first level of management and the gathering of evidence about patterns of usage and behavior at each level, so as to understand the overall effects of the PMSs.

According to (Wade & Recardo, 2013) increased business competition requires even more rapid and sophisticated information and data analysis. These requirements challenge performance management to effectively support the decision making process. Business analytics is an emerging field that can potentially extend the domain of performance management to provide an improved understanding of business dynamics and lead to a better decision making (Schlafke, Silvi & Maller, 2013). Also, it has been recognized that organizational performance management is supported by the business process management (BPM) approach and its implementation, and it determine business intelligence and trust (Vuksic, Bach & Popovic, 2013).

In this context, the paper will introduce and describe a proposed model for the organizational performance management (focus on the evaluation, analysis and monitor activity) in the context of the actual trends in the field. The proposed framework (model) takes into consideration three organizational determinants: objectives, resources and results. The relation between them defines three important organizational characteristics: efficiency (described

in our approach from the perspective of intellectual capital management), effectiveness and pertinence (analyzed and evaluated from the perspective of organizational and manager/leader behavior). Finally, some conclusions and future work are presented.

2. Description of the Proposed Model for Monitoring Organizational Performance

2.1. General description of the model

In Figure 4 is a general overview of the proposed model. Organizational performance is limited and stressed by three determinants:

- The scarce resources of all categories;
- Results as product and/or services of high quality and that have to be quickly delivered to customers (on the market), but also, positive financial results as profit or turnover rate;
- Organizational objectives defined by the managerial team.

These determinants are inter-related one to each other and by these relations are defined the organizational characteristics (related to all its processes and activities) as mention in equations 1 to 6. In the same time, the organizational characteristics are correlated one to each other, defining a unique combination and status of the organizational performance.

As it can be seen, organizational efficiency could be expressed by indicators that compare results with the corresponding resources that were used in the organizational processes (equation 1, 2, 3 and 4). In the proposed approached efficiency is seen as the level of performance that describes a process that uses the lowest amount of inputs to create the greatest amount of outputs. Efficiency relates to the use of all inputs in producing any given output, including personal time and energy. Effectiveness characteristic is related to the convergence of the results to the organizational objectives (formulated for all the organizational functions, departments, working groups etc.). Thus, the ideal situation corresponds to the value one of the report between the results obtained and the case of a specific objective (equations 5, 6, 7). In the proposed approached effectiveness is consider as the degree to which objectives are achieved and the extent to which targeted problems are solved. In contrast to the efficiency concept, effectiveness is determined without any reference to resources (cost, time etc.) and, whereas efficiency means doing the thing *right*, effectiveness means *doing the right thing*. Pertinence is the organizational characteristics related to the managerial team realistic decision-making process (or behavior) when objectives are formulated (equation 8). Pertinence is synonym with concepts as relevant, appropriate or suitable, in this case.

$$Efficiency = Results / Resources \text{ or } Efficiency = Resources / Results \quad (1, 2)$$

$$Efficiency = Results +/- Resources \text{ or } Efficiency = Resources +/- Results \quad (3, 4)$$

$$Effectiveness = Results/Objectives = Objectives / Results = 1 \quad (5)$$

$$Effectiveness = Results/Objectives \geq 1; Effectiveness = Objectives / Results \leq 1 \quad (6, 7)$$

$$Pertinence = Resources \rightarrow Objective \quad (8)$$

Each organizational characteristics has been extended, developed and define as an individual methodology in order to transfer the proposed model into an operational one (that can be tested and validate in real companies). In the following sub-chapters are presented some details regarding the proposed model (Figure 4). Since now, the proposed methodology has been partially tested and validated using real organizations case studies.

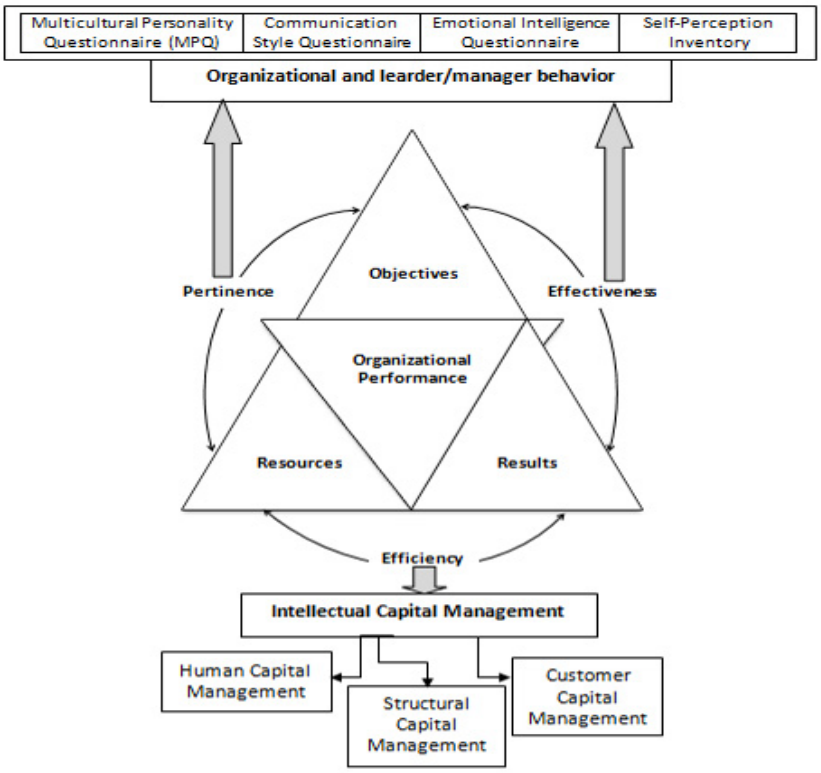

Fig. 4. Conceptual model for monitoring organizational performance – general overview

Table 2. The intellectual capital management indicators

Human Capital Indicators	Calculation Formula
Profit per employee (HCEE1)	HCEE1= PR/TNE where PR is the profit; TNE is the total number of employees
Value added per employee (HCEE2)	HCEE2= VA/TNE where VA is the value added; TNE is the total number of employees
Labor productivity per employee (HCEE3)	HCEE3= CA/TNE where CA is the turnover; TNE is the total number of employees
Structural Capital Indicators	**Calculation Formula**
The share of new product sales in turnover (SCMP1)	SCMPI=VPSN/VPST*100 where VPSN is the value of new products sold; VPST is the total value of products sold
The share of total spending on innovation investment (SCMP2)	SCMP2= CHI/CHT where CHI is the value of innovation costs; CHT are the total costs
Share value obtained from assignment / lease of copyrights in turnover (SCMP3)	SCMP3= VDA/CA*100 where VDA is the value obtained from assignment / lease of copyright; CA is the turnover
Customers Capital Indicators	**Calculation Formula**
Market share (RCCR1)	RCCR1= VC/VT where VC is the value of organization sales; VT are the sales value on entire market
The share of new customers (RCCR2)	RCCR2=NCLN/NTCL*100 where NCLN is the number of drawn customers in the last year; NTCL is the total number of customers
The share of large customers in total customers (RCCR3)	RCCR3= NCLL/NTCL where NCLL is the number of large customers; NTCL is the total number of customers

2.2. The proposed approached for organization efficiency improvement (Intellectual Capital Management)

The organizational characteristics of efficiency are connected to a specific methodology for the intellectual capital management. In Table 2 there are described the first level (most important) efficiency indicators that are used in order to analyze, evaluate and monitor (control) organizational performance in terms of:

- Human capital efficiency;
- Structural Capital efficiency;
- Customers Capital efficiency.

Each indicator is related to the comparison of a specific result obtained with a specific resource. For the calculation operability there have been developed an Excel platform that allow, finally a global image of the foot print of intellectual capital management (in term of organizational efficiency). Using adequate business process management analysis (debates with group of specialists involved in a specific organizational process) and using fish-bone diagrams of cause-effect, each process can be improved by increasing its efficiency.

2.3. The proposed approached for organization pertinence and effectiveness improvement (Organizational and Leader/Manager Behavior)

The organizational characteristics of effectiveness and pertinence are analyze, evaluate and monitor through specific tools of organizational behavior science (by taking into consideration social-psychological human resources aspects, in the case of the employees and all types of managers – from different levels). In order to generate a systematic approach of the analysis there have been define a methodology that consists of a test battery that is described in Table 3. The questionnaires choose are adequate to relevant aspects of the pertinence and effectiveness organizational characteristics. For the calculation operability (considering the large amount of data for one subject that have to be processed quickly) there has been created a web platform that allowed different users/employees (from a specific organization that is monitor or evaluate) to complete the tests. The results for a specific organizational group or for entire organization are processed by using the software facilities of Sphinx Plus²/Lexica Edition_V5. Finally, a global image of the organizational and leader/manager behavior is generated (in term of characterizing organizational effectiveness and pertinence). Using adequate business process management analysis (debates with group of specialists involved in a specific organizational process) and using fish-bone diagrams of cause-effect, each process can be improved by increasing its efficiency.

Table 3. The test battery that is used for the organizational and leader/manager behavior

Investigation Tools:	Objectives/Results
1. Multicultural Personality Questionnaire (MPQ) (Van Der Zee & Van Oudenhoven, 2000)	It measures interrelationship competence using the following personality traits: Cultural Empathy (CE), Open-mindedness (O), Social Initiative (SI), Emotional Stability (ES), and Flexibility (F).
2. Communication Style Questionnaire (Marsieu, 2007)	Characterization of communication styles, as: action oriented, process-oriented, people-oriented ideas oriented.
3. Emotional Intelligence (EI) Questionnaire (Marsieu, 2007)	Analysis of personal and social competencies as levels of EI: low personal skills - low social skills, low personal skills - increased social skills, increased personal skills - low social skills, increased personal skills - increased social skills
4. Belbin Team Role Self-Perception Inventory (www.belbin.com)	Assessing the potential role on the team: Coordinator (CO), Specialist (S), Plant (PL), Monitor Evaluator (ME), Resource Investigator (RI), Team worker (TW), Implementer (I), Completer Finisher (CF).

3. Conclusions and future researches

The proposed model for the organizational performance draws on the extant literature, but also on our observations (reference, theoretical and applied researches) upon different aspects, dimensions and variables that

were taken into consideration, in a variety of organizations over the last years. It represents the result of inductive reasoning applied to a variety of studies known to the authors. The proposed model is put forward as a research tool for examining the structure, operation and use of the performance management system (PMS, for organizations) in a holistic manner. In addition, the PMS define by the proposed model provides a tool which researchers can employ to describe the structure and use of the monitor (continuous analysis and evaluation) and control processes deployed by the management team (at different organizational levels) to ensure that an organization's strategies and plans are effectively implemented and their activities are efficient, under the conditions of pertinence objective formulation. The proposed model/framework provides a powerful means of obtaining an overview and appreciation of the structure and functionality of the PMS that are currently in use in a specific organization.

In the future, the proposed model for the organizational performance will prove to be a useful tool for empirical researchers and will assist them in documenting and defining the PMS systems of both for-profit and not-for-profit organizations, to both describe their operation and to go on to explore the underlying reasons for such monitor/control processes.

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