THE QUALITY MANAGEMENT INSTRUMENTS SUPPORT OF CHANGE MANAGEMENT IN ORGANIZATIONS

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ABSTRACT: The paper deals with challenges imposed by the intricate process of change management. The principles of quality management and also the methods of quality improvement, i.e. the instruments of quality management could be used as a basis to reach the goals of the inherent process of change in the organization and to make less painful the stress of human resources.
KEY WORDS: change management, quality management, instruments.

1 INTRODUCTION

Change management is studied with maximum attention nowadays due to high dynamics of organizations external and consequently, internal business environment.

The famous author of "Megatrends – Ten New Directions Transforming Our Lives" - John Naisbitt – has foreseen since 1982, a series of profound changes, which affected the entire life of the planet at individual and organizational level (Naisbitt, 1982).

These predicted changes were: transition from industrial society to knowledge based society; transition from high technologies to ones used in personalized manner; transition from a national economy to a global one, much more interdependent; move from short term managerial forecasts to long term ones; move from stiff organizational hierarchy to a network based on sharing ideas, information, resources etc.

Peter Drucker – one of management fathers - alleged long time ago: "The purpose of a business is to create a client".

The profit automatically results from this approach (Drucker, 1954).

This is the reason that a transition, a permanent adjustment to clients requirements is necessary. This is the motor of all organizational changes.

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The world is and will be in never-ending and complex movement. Organizations that do not adapt their management to outstanding market dynamics, do not permanently build their activity on Fundamental Principle of Quality Management, *Client Orientation* (Principle 1, ISO 9000) – can not live any more...

2 PROCESS STRUCTURE OF ORGANIZATIONAL CHANGE

The process of organizational change comprises a series of inter-reliant stages, some of them occurring simultaneously, synthesized in fig. 1. This structure emphasizes that process of change is based on three elements - *external environment of* organization, its *internal capacity*, but also *capacity* of organization *individuals* to achieve the change (Clarke, 2002).

Two main pillars sustain the change process: *understanding of process* – management attribute, which provides needed information through professional communication with all organizational levels; *creation of organizational culture* appropriate to change – process which has not rapid solutions, requiring long efforts.

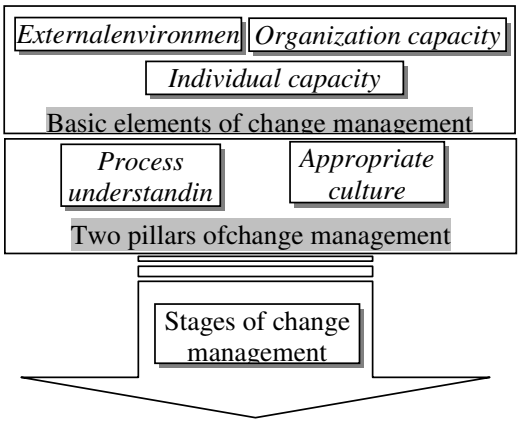

Figure 1. Structure of change process

3 USE OF QUALITY INSTRUMENTS IN CHANGE PROCESS

The change management process comprises several stages which will be briefly characterized, emphasizing the support of quality management instruments in order to accomplish the goal of the managerial process along to performances improvement.

Analysis of business environment.Statistical data pointed out that life duration of an American company is lower than 40 years. This is a similar parameter to product life duration, reduced by organization incapacity to transform and adapt to market requirements with enough speed. In this stage, Principle 1 of quality management, *Client orientation* is critical.

The starting point of transition process is not focused on inner company problems but on identification of those external trends (fig. 2), which organization is vulnerable to. This is analogous to *Quality Function Deployment* basic principle, which starts from clients requirements not from organization capacity (competencies) to achieve high performance products.

It is also useful to take into account the Principle 8 of Quality Management - *Mutually beneficial supplier relationships* (see fig. 2), which points out that an organization and its suppliers are inter-reliant and a reciprocally advantageous relation grows the ability of both to create value. Other interested partiesalso referred to as *stakeholders*, like employees, unions, owners, partners, bankers, or members of the general public, play also an important role, which can assessed through Principle 5 (ISO 9000), *System approach to management.* This underlines the implication of external and internal process network, which acts upon the organization in terms of efficacy and efficiency.

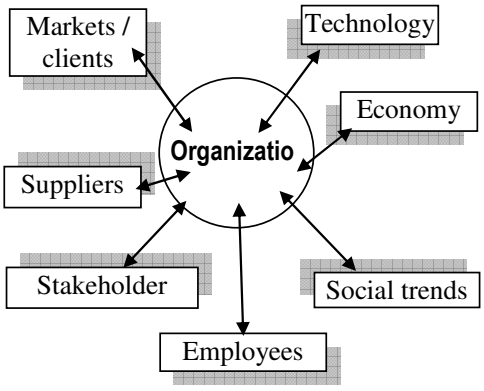

Figure 2. Business environment analysis

It can be noticed that relationship between organization and external environment are of feed-back type, the influence in one way depending on organization capacity to respond to external change processes (figure 2).

Evaluation of organization internal capacity. The achievement of change is based on organization structure modifying. This is an important challenge: which are optimal dimensions of an organization? More the organization dimensions are lower, more the distance between organization and customers diminishes (Principle 1). In this sense, nevertheless a correct solution is provided through application of Principle 4 of Quality Management - *Process approach*(ISO 9000); the structure is determined by the processes deployed within organization, generating the products (figure 3). The structure comprising nucleus and depending units formed on emerging projects basis - management through projects - is more and more used.

Concerning the management systems, it is necessary the identification, understanding and leading of correlated processes as a system (processes network), this contributing to efficacy and efficiency of organization in achieving its objectives – see Principle 5, *System approach to management* (ISO 9000). The keyword in applying this principle is *coherence* ofmanagement systems within organization (see figure 3). Vertebral column is Quality Management system, which makes the connection with all other systems of organization (Ghiculescu, 2004).

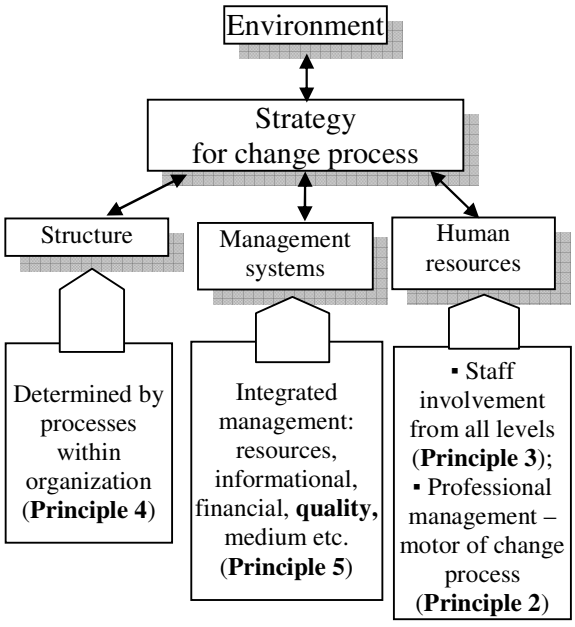

Figure 3.Management of change process

Change process is accomplished with the help of employees from all levels of organization. Thus, applying of Quality Management Principle 3, *Involvement of people*is essential. In order to achieve this *sine qua non* aspiration, a tight bond between employees and top management is created based on Principle 2 of Quality Management– *Leadership*. Thus, manager carries out, among other items:

- understanding the external environment evolution and conception of strategy and appropriate response means;
- establishing the courageous objectives and targets, but realistic ones and implementing the adequate strategies for reaching these objectives;
- communication with whole staff of organization aiming at staff understanding of objectives and ways of action;
- creation of internal environment favourable to change process;
- staff education, instruction and guiding;
- providing the resources and required liberty for employees who can act with responsibility.

It can be stated that *Principle of Leadership* represents the success key to accomplish the change process in organizations due to the frequency of its application in majority of its stages.

Change at individual level. Process starts at individual level, with the own person, which supposes the change of mentality and of individual perspective.

Naturally, the change process must begin with organizations leaders (see Principle 2 – *Leadership*), aiming at growing of confidence in self capacity of change.

The change at individual level is a difficult process. It is well known the *paradox of personal transformation*: the person on whom we possess maximum control is our own person, but nevertheless the person that can be changed with most difficulty is also our person.

The achieving of personal change is characterized by a certain degree of pain, which has a lowering trend once the change process sets out (figure 4). It can be noticed three differentiated phases within the change process: *anend, a neutral ground* and *anew beginning* (Bridges, 2004).

The boundaries which margin these phases are not well defined; they can be straight lines or curves with different slopes.During the process of change in current state, individual finds himself in more simultaneous phases, each of them being predominant by a certain moment of time as it is displayed in figure 4.

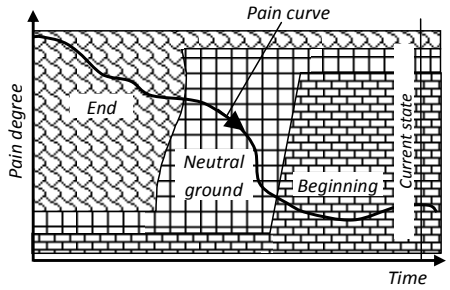

Figure 4. Change transition at individual level

This natural phenomenon explains how today after 20 years of transition in Romania, the individual tendencies belonging to the previous eve still live; this also an expression of reactive policy (Ghiculescu, 2007).

Understanding of change process supposes application of Principle 2 – *Leadership*. Thus, the manager perceives the existing similitude between the organizational transition and the individual one and communicates to all organization levels, all indispensable information. This is the result of *total quality management*.

KurtLewin - founder of social psychology - proposed a very synthetic and plastic model of the change process (Lewin, 1947). Therefore, for achieving a durable organizational change, three phases must be accomplished: *unfreezing, change, freezing* (figure 5). The basic condition of change process occuring is that learning happens in organization and this possible only if organization has a fluid state. Thus, the change is always characterized by disorder, ambiguity, traits which confer the trend toward movement and transformation. For acceleration of organization learning process, the defrost must be hurried. In learning stage (change stage), the personnel needs psychological safety, support and guiding when faces the risks and ambiguities;*Leadership* Principle acts. The frost is based on new infrastructure and structure, appropriate to organizational change, and also new documents of *Quality Management System*: policy and quality objectives, quality manual, procedures, records, quality plans, work instructions etc.

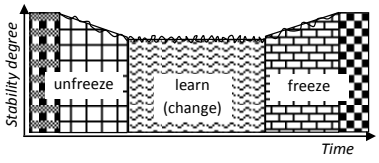

Figure 5. Change process model in organizations

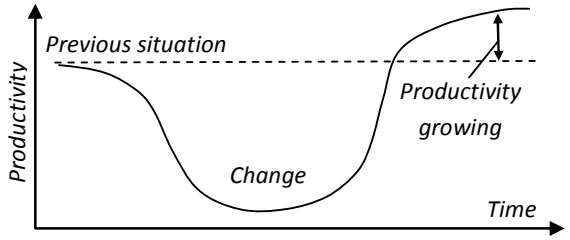

Figure 6. Productivity curve during change process

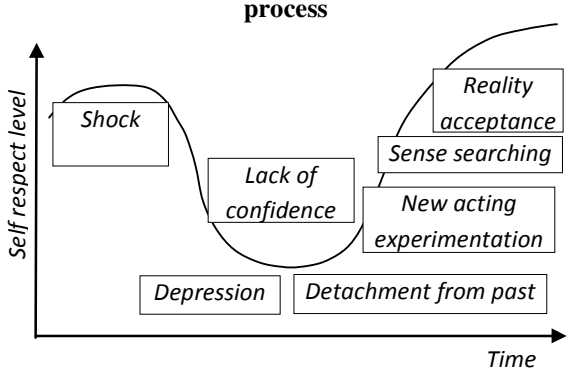

Figure 7.Self respect evolution during change process

Freezing corresponds to stage *A* from Deming's cycle *PDCA*. After that, the cycle restarts at superior level, as in Juran's model, quality spiral, by applying thePrinciple 6 (ISO 9000), C*ontinual improvement*.Some parameters, characterizing the organizational change process at organizational and individual level, are presented in fig. 6 and 7, (Clarke, 2003) in correspondence with phases of K. Lewin's model. It can be noticed that an inherent decreasing of values occurs at the beginning of the process, which must be aware at all levels of organization. In this phase, the role of *Leadership* is essential. Otherwise, the change process could fail.

Creation of organizational culture appropriate to change. The foundation of a durable change is understanding of organizational culture.

If the intended change is in contradiction with history and traditions of company, then its achievement will be very difficult.

Investment in education is essential in order to create organizational culture adequate to anticipated change process.

Companies as ICL (United Kingdom), Ericsson (Sweden), which invested each of them, over 40 millions € for this goal, are relevant examples in this way.

This is an expression of Principle 2 *Leadership* and finally, of Principle 3, *Involvement of people* as well as Principle 6, *Continual Improvement*of global performance of organization, which must be a permanent orientation in quality policy of any organization. Obviously, the motor of all these processes is Principle 1, *Client Orientation*.

These decisions for investments can be taken on quality audit basis, which can provide reliable data concerning the answer to the question: is indeed organization culture a pillar for the change?

This represents the action of Principle 7 (ISO 9000), *Factual approach to decision making*.Practice proved that famous cases of change within great companies show that transition occurred only in crisis situations.

Although, the members of team management are frequently conscious of change necessity, they discover that nobody support them. This is the moment to use Principle 1,*Customer focused organization*.

Therefore all employees are helped to establish a so close relation with the market, customers and concurrence, that they are themselves aware of change necessity.

Another way to create an appropriate organizational culture is to apply the method „People matters".

From this point of view, Hewlett Packard Company is famous because it created a style based on assigning feasible tasks, success rewarding and giving the opportunities to celebrate the accomplishment.

Anticipation and defeating the resistance to change is based in fact, on application of Principle3 (ISO 9000), *Involvement of people*.

In order to produce the change (*C*), it is necessary to satisfy the Gleicher's relation, promoted by Beckhard and Harris (Beckhard, 1969):

$$C = (A \cdot B \cdot D) > X \tag{1}$$

where: *A* is level of actual dissatisfaction; *B* – level of change attractiveness; *D* – probability of change achievement; *X* – level of change cost.

Experience pointed out that the most efficient techniques for change accomplishment are those focused on factor *D* increase.

In connection to D, resistance to change can be diminished, if the process is announced sufficient time before. Otherwise, the staff is affected by created shock.

The force fieldanalysis (Lewin, 1947, 1951) is a method that evaluates forces for change as favourable and unfavourable, establishing a resultant which affects factor *D* (table 1).

Table 1. Example of force field analysis

Favourable forces	Unfavourable forces
Competitive increase	„Old school"
Efficiency increase	Lack of human appreciation
Business development	Work tasks too big
Customers keeping	Another change
Company image	High costs
Use staff competencies	Loosing of people position
	Not apparent advantages

Relation (1) was improved by Kathleen Dannemiller, making it more accessible for managers (Dannemiller&Jacobs, 1992):

$$C = D \cdot V \cdot F \cdot CL > R \quad (2)$$

where: *D* is Dissatisfaction with actual state of organization; *V* - Vision of organization; *F* - First concrete steps that can be taken towards the vision; *CL* - Creative Leadership to reach the vision; *R* - Resistance to change.

If the product of these four factors is greater than *R*, then change is possible. Because *D, V*, and *F* are multiplied, if any one is zero or low, then the result will be low and therefore not capable of overcoming the resistance (*R*).

As one can notice, the application of Principle 2, *Leadership* has the utmost importance to achieve the change goal.

The move to staff involvement in change process is considered a major change from Frederick Winslow Taylor's theory, *scientific management approach*, known as Taylorism.

This philosophy underlines "workers work, managers think" being a reflection of the industrial age. Nowadays, in knowledge based society, the concept of organizational psychology is critical (Oprean&Ţîţu, 2008).

The intangible resources as informational ones carriedby human resources represent the base of change process aiming at sustainable competitive advantage (Porter, 2001).

There are more techniques for attracting in change process the key-actors from the organization, who have the capacity to convince the rest of personnel to join and adhere to process.

Table of adhesion to change -based on researches of Beckhard and Harris - which assesses the state of mind of the key-actors on a scale that has at its extremes the categorical opposition and the desire of effective participation (Beckhard, & Harris, 1987) – table 2.

Table 2.Key-actors adhesion to change

Key-actors	Strong Opposition	Not adhering	Passive acceptance	Supports achievement	Direct involvement
1.			x →		o
2.		x →		o	
...				**x o**	
...	x →		o		
n.			o ←		x

where: x is present position; o – desired position.

As it can be noticed, some of key-actors must be involved in the change process due to their competencies; others have to give only their support or passive acceptance because they have inappropriate educational profile for the process.

The problems that question the change process could be solved by using some quality management instruments. An analytical approach in several stepsis provided by successive application of *Relation, Tree and Affinity Diagrams*, leading to identification of causes and subcauses generating unfavourable effects upon the change process. Then, in order to establish a priority of causes, from the point of view of concrete action on them, *Ishikawa Diagram* could be applied (Ghiculescu, 2004).

Visionary leading. Creation of common vision and action according to this represents again an expression of *Leadership* Principle. Anita Rodick, president and cofounder of Body Shop Company said: "The vision is what you see and others don't.Someone could say that this is an appearance of madness. In fact, this is the initiative spirit and creativity"(Clark, 2002).

Intense communication. The absence of communication leads to fail. Long-lasting transformation is that produced from the base (bottom-up), through real consulting of personnel applying Principles of*Leadership* and *Involvement of people* from all levels. Gorbachev tried to reform the system from top-down, but finally he produced a disagreement with the forces that unleashed him and then they asked the change from the base. It is amazing what happens when people assumes responsibility to change themselves the things, treating the change as being their own. The early involvement in change process emphasizes the property and adhesion feelings, creates the „critical mass" of change and diminishes *R*. This strategy is based on greater communication efforts at

beginning of change curve (fig. 8), (Clarke, 2002)In this case, productivity does not fall so dramatic.

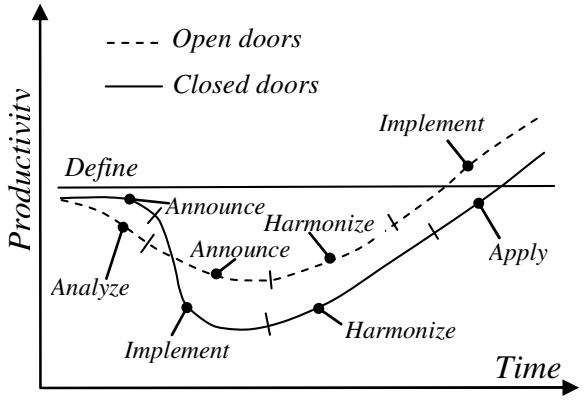

Figure 8. The advantage of staff early involvement, expression of Leadership – open doors discussion

Organizational change achievement. For effective achieving the change process, one must apply the rule 10/90.

That means that 10% from entire duration of process represents analysis of external and internal medium, process understanding, vision establishing, and rest of 90% is necessary time for effective implementation of change (Clarke, 2002). Therefore, change process must start as soon as possible because it lasts more than we could expect it.

In this stage, it is fundamental to apply Quality Management Principle – *Process approach* – which is based on Deming's cycle - *PDCA*.

This supposes the existence of a permanent feed-back between action (*Do*) and evaluation (*Check*) before change process becomes official (refreeze - *Act*), which can lead to process improvement, resuming to previous stages, including planning (*Plan*).

Organizations pass through five predictable cycles of changes, as *Greiner's model* indicated: Growth through Creativity, Growth through Direction, Growth through Delegation, Growth through Coordination, Growth through Collaboration (Greiner, 1972).

Each stage finished with a specific crisis: Crisis of Leadership, Crisis of Autonomy, Crisis of Control, and Crisis of Red Tape. Each crisis can be solved applying an appropriate change process. The final crisis is not well defined and could be a resume to initial stage.

The Greiner's model takes into account two variables: the age and the size of the organizations. In order to get sustainable competitive advantage, a SME is located in the phase of Growth through Creativity or in the in the Crisis of Leadership.

It has to make the most number of changes despite the fact that it has the lowest level of resources but in this stage, it has the advantage of flexibility.

4 CONCLUSIONS AND INTENTIONS

Change management process as part of general managerial processes can be conducted using quality management instruments.

The eight quality management principles and various methods of quality improvement are appropriate to each phase of change process.

A special attention will be paid to SMEs as main motors of any economy, most of all, to those activating in high-tech field like concentrated energies technologies.

Therefore adequate instruments of quality management will be applied in order to elaborate a change process model for those SMEs.

5 ACKNOWLEDGEMENTS

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