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Improving Organizational Performance of Construction Management Processes

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Abstract

– Improving management processes in a construction company requires an intervention to the performance-processes–organizations-systems chains that currently exist in an organization. This intervention should be planned and carried out in a systematic way to assure its success when facing the culture and characteristics of the people that are to be affected by the changes that will be introduced. This paper describes an improvement framework utilized and reports the main findings obtained from its application to a construction company. It also discusses the necessary conditions for a management process improvement project and the need for further research in this area. A preliminary conclusion shows that the improvement framework, although systematic in its application, should be flexible and dynamic at the same time to adequately address the uncertainty of groups and individual behaviours.

Keywords

Organisational Performance, Improvement, Processes, Management, Construction Companies.

1. Introduction

Construction companies have seen the necessity of modifying their behavior by means of more rationalization and a better handling of their management processes in these last years. This tendency has allowed them to understand that its efficiency depends not only on its construction processes but also on the support that management processes provide them.

According to Dávila (2001) a process is the product of the continuous development of a group of tasks or articulate activities, with the purpose of adding value and transforming the process inputs into profitable results for the organization. The application of the process concept allows obtaining a horizontal vision of the organization through the client-supplier relationships that the processes create. These relationships allow the identification of the road that the working flow should follow to cross the functional limits of the organization.

In construction, processes can be classified in two categories: construction and management processes. Management processes have a direct relationship with the strategic activities that a certain organization carries out. In general, management processes present more difficulty in the detection of losses and inefficiencies because the result that the process delivers it is not always tangible and easily detectable. This

characteristic hinders that quick and efficient changes take place as those that happen in production processes (Ragsdell, 2000).

Hammer and Champy (1993) developed studies and methods to drastically improve the performance of processes by means of the analysis of the organizational bases of companies to correct any situation that harmed the working flow and the satisfaction of the clients (Peaucelle, 2000). In this sense, two basic schemes of process improvement can be identified: process continuous improvement, oriented to identify and eliminate or reduce all the activities that don't add value to the process, and process reengineering, used for rethinking and radically redesign management processes with the purpose of obtaining improvements in the result of the such performance indicators as cost, quality, service and velocity (Hammer and Champy, 1993).

According to Mohamed (1997), the traditional concept of process reengineering is difficultly applicable in the construction industry due to the complex and fragmented nature of this sector, which hinders the possibility of getting a clear definition and standardization of management processes.

Any change in an organization produces barriers or resistance which should be analyzed in order to creating actions that allow mitigating them. According to Profozinch (1999), these resistances are: a) internal barriers which depend on the configuration, culture and behavior characteristics of the company and they are known as organizational barriers and b) external barriers which are related with the environment in which the company is working and they are known as barriers of the industry. In the case of an improvement of management processes the resistances that can affect to the execution of the goals outlined by the improvement project are mainly related with organizational barriers. To diminish the effect that the aforementioned barriers can cause, it is important that certain conditions are developed previous to the application of a process improvement project to assure that the objectives of the improvement program are accepted and known by all the personnel and that the goals to be reached are aligned with the strategic objectives of the organization.

A change in organizational aspects affects the organization's functions and responsibilities and it generally includes the incorporation of policies, procedures, rules and common practices, contrary to the cultural change that points to modify the way that people interact and behave to the interior of the company (Dávila, 2001). To achieve an effective and efficient process of organizational change, it is necessary that three important conditions are defined: a) the current situation of the company, b) the goals to be reached with the change and c) the actions that the organization has to develop to face the transition process (Ragsdell, 2000). According to Hax (1999), the form in that the change is implemented can directly influence the efficiency of the transition process.

This work presents the study of a case of organizational change, describing its scope, objectives and main obtained results. Next, an improvement methodology for management processes for Chilean construction companies is proposed. This methodology was developed starting from the experience of the studied case. This methodology can serve as an orientation guide for other companies in need of carrying out changes to their management processes.

2. DESCRIPTION OF THE CASE OF STUDY

The study of the improvement of a management process was carried out in an important Chilean real estate and construction company. This company decided to carry out an improvement of its process of development of real estate projects, a fundamental process and a central competence of the company. The

study of this project was carried out in two parts: 1) the definition and application stage of the improvement and 2) the monitoring stage of the improvement.

Before the improvement project, the company was organized based on a functional organization. Although the company was organized in departments, a clear centralization was appreciated in the top management decision making. The development process of real estate projects began with the emergence of an idea or business opportunity that was maturing through the time with the support of the departments that had responsibilities associated with the conception, development, execution and commercialization stages of the real estate products. The main concern of the company's management was the high level of inefficiency and the lack of administration and coordination of the process due to a high degree of informality among participants and between the different stages of the process. This situation hindered the definition of a good product, allowing a disorganized incorporation of changes during the execution of the project and producing unjustified increments of execution cost and time, and a loss in the competitive level of the company.

Based on this situation and on the interest of the company's management for increasing the satisfaction of their clients and assure the quality of their products, the company decided to carry out an organizational improvement through the application of process management to the development of real estate projects.

2.1 ESTABLISHED OBJECTIVES FOR THE IMPROVEMENT PROGRAM

The company outlined the following objectives for the improvement program: 1) to reduce the time of reception of the payments from clients, 2) to improve the clients' satisfaction with the after-sales service, 3) to standardize the most outstanding sub-processes and improve the coordination of the participation of the functions along the process, 4) to assure the execution of the established time and to accomplish the delivery terms committed to the clients, 5) to improve the constructability of the projects and the quality of housings, 6) to give more support to the projects for assuring the achievement of costs, time and quality and the incorporation of innovations and 7) to generate an efficient and effective structure for the integrated management of real estate projects.

2.2 MAIN RESULTS AND PROBLEMS OF THE IMPROVEMENT PROGRAM

A new organizational structure of the company was generated with a process focused vision. Also, the following additional improvements were achieved: simplification of management tasks, creation of a management structure for project management and a marked orientation to the client of the new real estate development process. In addition to this, the company achieved several strengths during the improvement project as follows:

- Implementation of Total Quality Management.
- Generation of a positive personnel attitude in front of changes.
- Improvement of functional department's relationships and coordination.
- Development of project management competencies.
- Improvement of the quality of final housing products.

As any change process, the improvements implementation program faced several organizational difficulties that impacted the development of the improvement project as follows: a) Strong pressure from management to achieve short term objectives, b) Centralization and poor definition of the training of working teams, c) Implementation of many programs in concurrent form, affecting the commitment of those involved, d) Lack of coordination and control instances for the implementation, e) Lack of an appropriate resources assignment to the program, f) Bad communication of changes and new processes, g) Integration barriers

among the different processes of the company and h) Problems of people's values and beliefs and deterioration of the organizational climate.

3. A METHODOLOGY FOR THE IMPROVEMENT OF MANAGEMENT PROCESSES IN CONSTRUCTION COMPANIES

The application of an improvement project of management processes needs to be channeled by means of the application of a systematic and disciplined methodology that will allow achieving an increase in the performance levels of construction companies. The use of such a methodology will allow defining the steps and necessary actions to reach the goals outlined for the improvement. In addition to this methodology to increase the success potential of an improvement project it is important to take into account certain basic conditions as follows: a) the commitment and support of management, b) clear definition of the project scope, c) realistic expectations, d) an efficient improvement team, e) to begin with strategic processes, f) to have the appropriate resources, g) to decentralize decisions, h) to be focused in a single change project at the same time and i) to consider the human side of the organization.

Figure 1 presents the proposed pattern for improvement of management processes of a company with their respective stages and the activities that are developed at each phase. The methodology allows solving problems attacking the root causes, by means of a team work that allows breaking the inter-functional and interdepartmental barriers, promoting people's participation and commitment of diverse departments and functions by means of the consideration of the internal client.

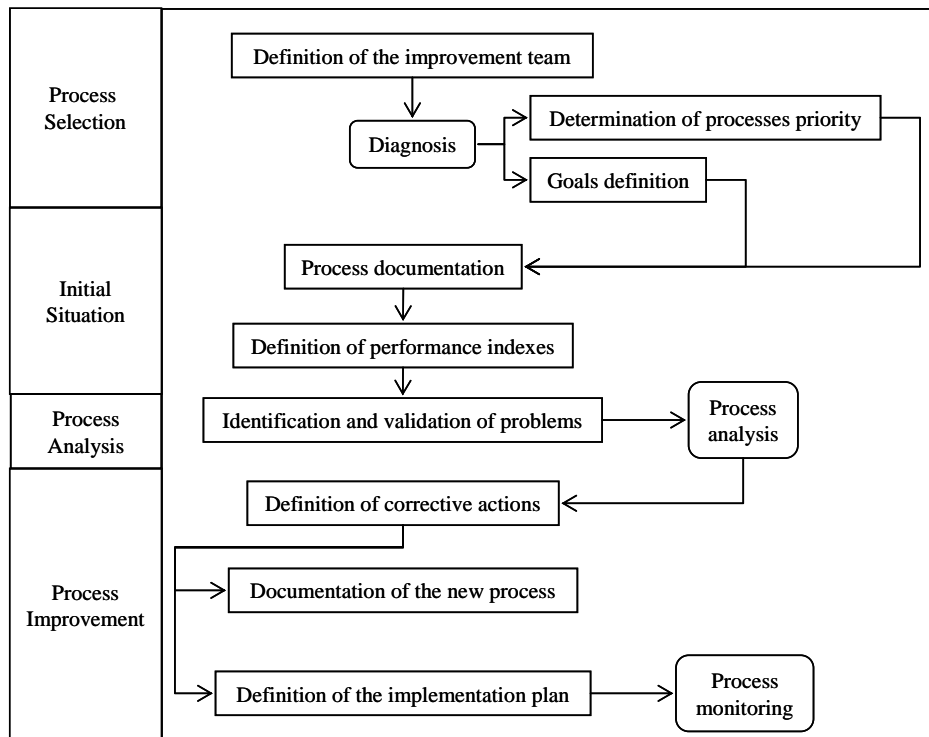


Figure 1 Management processes improvement model

The selection of the project includes four activities that allow establishing the objectives of the improvement project and justifying its selection. In general, the decision of carrying out the project has direct relationship with the results provided by the diagnosis. The objective of the diagnosis is related with the observation of the symptoms, and the analysis and identification of the causes that hinder the normal acting of the company.

The processes priority ranking and the determination of objectives are two essential activities of the improvement project. According to Dávila (2001), the objective of an improvement project should be expressed in a sentence that contains the following elements: to) an indicator of change (to improve, to reduce, to increase, to eliminate...), b) an indicator of quality (errors, time, cost...), c) a quantification of the objective, d) the establishment of a time to get the objective and e) the definition of the involved process or activity.

At this stage, changes and modifications that will allow solving the process problems are defined. Corrections begin with the definition of the objectives for the improved process which allows identifying which will be its activities and relationships with other processes.

Documenting the process helps to maintain the realized improvements through time. This activity is carried out after verifying that the current behavior of the process does not need another readjustment, in other words, the documentation is produced only after verifying that corrective actions have had the wanted success. In the documentation of the process the performance levels should be defined so that they can be used to check the performance of the process in the future and inform all the involved people which is going to be the working flow of the process which are the defined checkpoints which are the inputs and which are the acceptance criteria.

Once the new process has been detailed, the corrective actions are implemented. This stage is considered as the more critical one of the improvement project. For this reason a sound implementation plan should be defined. The plan should include the required resources that the new process will need and the communication and information instances between the members of the improvement team and the performers of the process.

The operative and methodological aspects of the outlined pattern could report benefits in a quick way to the organizations that apply it. The effort to identify the process or critical processes where the improvement will be applied, the documentation and the systematic measurement of the yield, among others, are activities that will increase the value generated by critical processes and, consequently, the satisfaction of clients. However, there could be cases that, after applying the proposed pattern of improvement, the organization perceive that the obtained benefits are limited since cultural and organizational barriers that impact the implementation stage always exist.

For this reason, it is important to consider some dangers that should be taken into account to avoid a failure at the implementation stage of the improvement project as follows:

- Not linking the new management scheme to the organizational strategy.
- Not taking into account the organizational culture.
- Not defining a good communication system.
- Not relating the functional structure and the processes efficiently.
- Not understanding the relationships that exist among the different organization's processes.

4. CONCLUSIONS

The main objective of this work has been to establish an improvement model for management processes that allow acting systematically to settle down and in an orderly way to improve the administration processes and to achieve an increase in the performance levels of construction companies. To define this methodology, bibliographical records have been gathered and the experience from an improvement project of a Chilean construction company. The participation on this project allowed developing this particular improvement model and identifying the major difficulties that arose during its application.

Base on the information obtained from the studied improvement project, the following conclusions lessons were learned for future improvement projects:

- 1) An improvement project should create in the organization a vision focused on processes.
- 2) It is a requirement the active participation of company's management.
- 3) It is important to count with efficient improvement teams with a coherent behavior and motivated to achieve the project goals.
- 4) The application of an improvement project allows standardizing the behavior of the different management processes. Then it is important to start with the improvement of those processes that are of strategic nature which are critical for the corporative goals.
- 5) It is necessary to correctly define the Project scope to identify all the necessary activities to achieve the desired goals.
- 6) An improvement project should be efficiently manager by the different improvement teams, through the application of appropriate techniques and tools.
- 7) The improvement implementation could generate change resistance, even more in the case of construction companies where several deficiencies can be found in their organizations' management. For this reason, it is necessary to incorporate activities that allow taking into account these potential barriers like communication planning, training and education and other change approaches.
- 8) It is important to consider that an improved management process generally requires a change of the organization structure, its culture and the application of new information technologies.

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