

# PROJECT IN DIFFERENT ORGANIZATION STRUCTURES AND TRANSITION FROM NON - PROJECT TO THE MORE PROJECT- ORIENTED ORGANIZATION STRUCTURE

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## Abstract:

In this paper we consider different organization structures and discuss significance and position of their projects. The organization structure plays an important role in day-to-day functioning of the organization. Comparison of organization structures in key aspects for understanding the role of the projects in them is given. The modern point of view of organization structures' orientation and reasons for planning and implementing structure changes are discussed. At the end, we examine one model and give example of functional organization transition to more project oriented one.

**Key words:** organization structure, project, change management

## 1. Introduction

In recent years the professions have undergone radical transformation. With the advent of rapidly changing markets, more sophisticated and demanding clients, deregulation and increased competition, the professional partnerships have given way to larger, more corporate forms of organization, comprising autonomous business units. Organization structure is dynamic element of every business subject and in some way it contains all parts of it. Organization structure integrates use of all resources. It is always changing, updating and actualizing (according to the reasearching, every company has to undertake moderately organizational changes annually or at least every 4-5 years.)

## 2. Organization structure Types

We can research organization structure from different aspects and clasify it equivalently in particular group.

Types of organization structure are different in performing the internal division of activities, to every level in the company. Theory of Departmentalization is studing formation of the lower organization units.

Today there is no company, even the smallest one, where we can find only one organization form or type, which would be applied to whole depth of organization pyramid. Researchers give different divisions of organization structure.

Classification can be as follows: (developed by Tom Burns and G. M. Stalker)

Mechanicistic organization structure – rigid, complex and formal, with strong rules and high centralization degree, shedule work division and specialisation, as well as narrower range of control and vertical system of communication. Here are functional, divisional and matrix organization structure.

Organic organization structure – less complexity, higher degree of freedom and less formalization, as well as higher degree of decentralisation. Number of management levels is small (washly organization structure) as well as wide range of control and horizontal system of communication is developed. Here are T-form, web, virtual, team, process, invert, modular and cluster organization structure. All of them can be classify as follows:

- Process – work grouping around central process, by forming multidisciplinary teams
- web – self – sufficient groups associate electronically and they negotiate via central broker in order to achieve profit, and they can be located anywhere in the world

Modern (trendy) types of organization structure are:

- ✚ T-form structure
- ✚ Virtual structure
- ✚ Web structure
- ✚ Inverted structure
- ✚ Fishnet structure
- ✚ Team structure
- ✚ Front / back structure
- ✚ Amoeba structure
- ✚ Fractal structure
- ✚ Cluster structure
- ✚ Heterarchy
- ✚ Hypertext structure

For purpose of this paper we'll focus on functional, project and matrix organization structure and we'll say something about virtual organization.

Experts agree every organization structure has elements:

- ✚ Differentiation, means levels of departmentalization, showing horizontal complexity of the structure (how to set up departments and linkages between departments)
- ✚ Degree of centralization, where chain of command and span of control belong, showing vertical complexity (hierarchical levels and linkages between them)
- ✚ Degree of formalization, showing standardization: reliance on formal rules and procedures

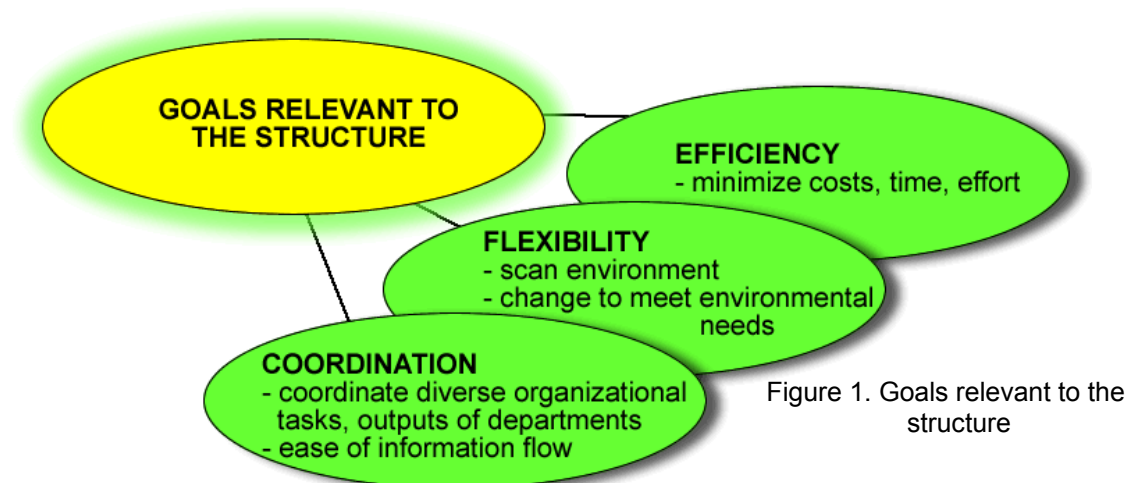


Figure 1. Goals relevant to the structure

Goal \ Organization. str.	Functional	Project	Matrix
Efficiency	+	-	-
Flexibility	-	+	++
Coordination	-	+	--

Figure 2. Comparison with respect to goals

Designing an organization involves choosing an organization structure that will enable the company to most effectively achieve its goals (see Figure 1.). If we are talking global, achieving goals looks as it is shown in figure 2.

Organization chart:

- ✚ Determines super and subordinate relationships, reporting relationships
- ✚ Often determines physical and mental proximity between people
- ✚ Frequency of communication between people
- ✚ Speed of communication and speed of decision making
- ✚ Organization members' patterns of identification
- ✚ Influences how much people know about what other people in the organization do

### Functional structure

In a functional organization, authority is determined by the relationship between group functions and activities. Functional structures group similar or related occupation specialities or processes together under the familiar headings of finance, manufacturing, marketing, accounts receivable, research, procurement etc. Economy is achieved through specialization. However, since different departments are trying to achieve their own goals, the organization risks are not transparent.

Even a fundamentally functional organization may create a special project team to handle a critical project. Project managers interact continuously with upper-level management, perhaps even more than with functional managers.

Here are the main strengths and weaknesses of functional organization (see figure 3.)

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>✚ Economies of scale within functions</li> <li>✚ Internal efficiency, in-depth skill development, specialization, high quality</li> <li>✚ Best for small companies</li> <li>✚ Keep staff located in their unit organizations with only one or a few products</li> </ul>	<ul style="list-style-type: none"> <li>✚ Slow response time to environmental changes</li> <li>✚ Process orientation (getting it done within discipline approach rather than the best way it works)</li> <li>✚ Decisions may pile-up on top; hierarchy overload</li> <li>✚ Poor inter-unit coordination</li> <li>✚ Less innovation</li> <li>✚ Restricted view of organization goals</li> </ul>

Figure 3. Strengths and Weaknesses of functional organization

Project structure

"In the world of unpredictability, you're either kinetic or you're dead" (Fradette, M., 1998).

The structure supports projects as the dominant form of business. Each project is treated as separate and relatively independent unit within the organization.

Staff is grouped and located by project into project teams headed by a Project Manager. Here are some of the possible strengths and weaknesses of project organization (see figure 4.)

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>✚ Clear authority and responsibility</li> <li>✚ Improved communication</li> <li>✚ Is suited to rapid change in unstable environment</li> <li>✚ Improves coordination among company</li> <li>✚ Divisions of work is on the projects</li> <li>✚ Best in large organizations with several projects</li> <li>✚ No functional organization interfaces to manage</li> <li>✚ There is only one executive, the Project Manager</li> </ul>	<ul style="list-style-type: none"> <li>✚ Duplication of effort (various projects may require resources that are duplicated on other projects)</li> <li>✚ Project isolation (each project may be thought as a self – contained unit, so the project may become isolated from other projects in the organization)</li> <li>✚ Technical experts have no professional headquarters</li> </ul>

Figure 4. Strengths and Weaknesses of project organization

Matrix structure

Staff are grouped and located by speciality into functional units headed by a Functional Manager. Each member of staff has two or more executives. Some of the possible strengths and weaknesses are shown below (see figure 5.)

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>✚ High level of integration (sharing skilled people and resources)</li> <li>✚ Improved communication (due to high level of integration)</li> <li>✚ Suited to complex decisions and frequent changes in unstable environment</li> <li>✚ Provides opportunity for functional and project/product skill development</li> <li>✚ Best in highly uncertain environments and organizations with multiple products and project based work</li> </ul>	<ul style="list-style-type: none"> <li>✚ Causes participants to experience dual authority: frustrating and confusing</li> <li>✚ Means participants need good interpersonal skills and extensive training</li> </ul>

Figure 5. Strengths and Weaknesses of matrix organization

## Virtual structure

*"Information technology provides a formal method for overcoming limitations"*  
(Davis, S., 1987)

In the time yet to come, most project personnel will work in virtual teams, at least in the some part of their job. In this approach, a lead organization creates alliances, both internal and external with other groups. Those groups are most competitive to build specific products or to deliver services in the shortest period of time. These alliances are virtual in nature because the skills required are not homogenous to the lead organization but are hybrid groups and individuals from different organizations, including competitors, customers, and suppliers, located in different geographic areas who may never meet face to face on the project. Their purpose is to bring specific, high quality products to market quickly, or to deliver services as required by the customer. Once the project is complete, the alliance or the virtual team is disbanded.

Lipnack & Stamps (1997) define a virtual team as "a group of people who interact through interdependent tasks guided by common purpose" that "works across space, time, and organization boundaries with links strengthened by webs of communication technologies". We define a virtual organization as a geographically distributed organization whose members are bound by a long-term common interest or goal, and who communicate and coordinate their work through information technology.

The structure of the modern organization resembles the flexible, interlinked web of a fishnet. Unlike the rigid industrial-era "pyramid" structure, a "fishnet organization" is characterized by blurred company boundaries and borders. Electronic information systems enable parts of the whole organization to communicate directly with each other, whereas the hierarchy wouldn't otherwise permit it. (Davis, 1987). The result is that the new organization is able to deal with changing roles, attitudes, expectations and cultures rapidly.

As we see in figure 6, these are temporary (or semi-permanent) hierarchies, which capitalize on distributed capabilities to achieve specific purposes; when those purposes are achieved (or when the opportunities no longer exists), they disband, and the resources (people, knowledge, skill sets) are returned to where they came from.

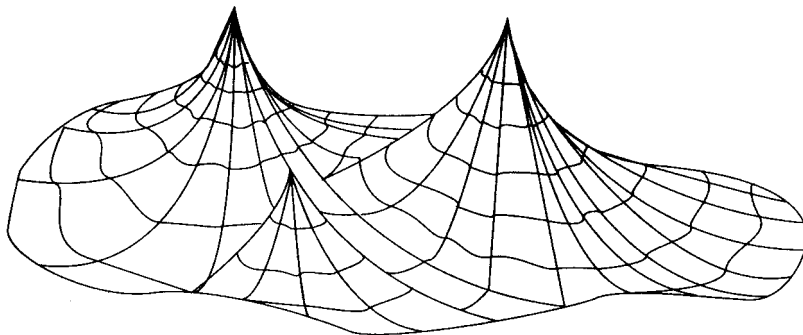


Figure 6. Organization structures are beginning to look like fishnets

### 3. Projects in different organization structures

All organizations, from small non-profits to the multinational enterprises, need to complete projects to move forward with their missions and strategies. There is a growing need for the management of projects in business organizations. In recent years, researchers have become increasingly interested in factors that may have an impact on project management effectiveness.

Within organizations, companies have organized project offices which more effectively specialize in managing projects, even if their domain of organization structure is non-project oriented. The project office is an organization developed to support the project manager in carrying out his duties.

The project team is a combination of the project office and functional employees. In larger projects and even in some smaller investments it is often impossible to achieve project success without permanently assigning personnel from inside and outside the company. Project management effectiveness refers to the success of the project. Both the success of the project and the career path of the project manager can depend upon the working relationships and expectations established with upper-level management.

Organization structure influences on projects (see figure 7.). As it shows, projectized organizations are most effective for project success.

There are some researches of managing construction and the new product on the market, shown that project matrix is the most effective to project success (see figure 8.)

Organizational Project structure Characteristics	Functional	Matrix			Projectized
		Weak Matrix	Balanced Matrix	Strong Matrix	
Project Manager's Authority	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Resource Availability	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Who controls the project budget	Functional Manager	Functional Manager	Mixed	Project Manager	Project Manager
Project Manager's Role	Part - time	Part - time	Full - time	Full - time	Full - time
Project Management Administrative Staff	Part - time	Part - time	Part - time	Full - time	Full - time

Figure 7. Organizational structure Influences on Projects[1]

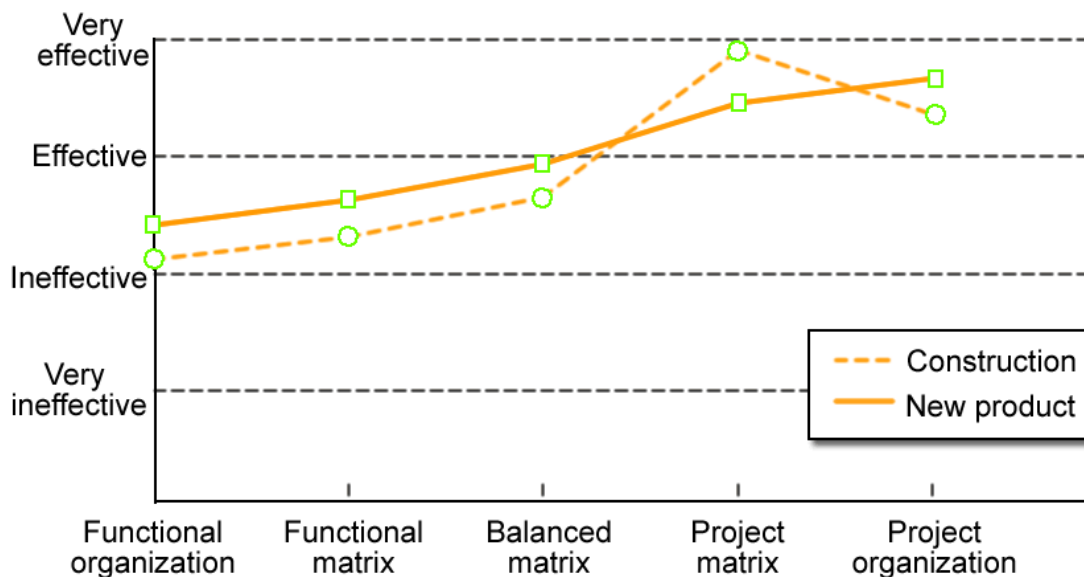


Figure 8. Projects and organizational Effectiveness

#### 4. Reasons for planning and applying changes in organization structure

When organizations are unable to achieve the required level of effectiveness, they must determine the causes for this poor performance and the changes that are required to enhance their capabilities. Organization structure change should always be the last option, as shown in figure 9.

If having successfully answered the questions and arrived to step 6, you collected enough information to recognize that an organization structure change, coupled with other changes, is what is required to enable you to properly manage the business.

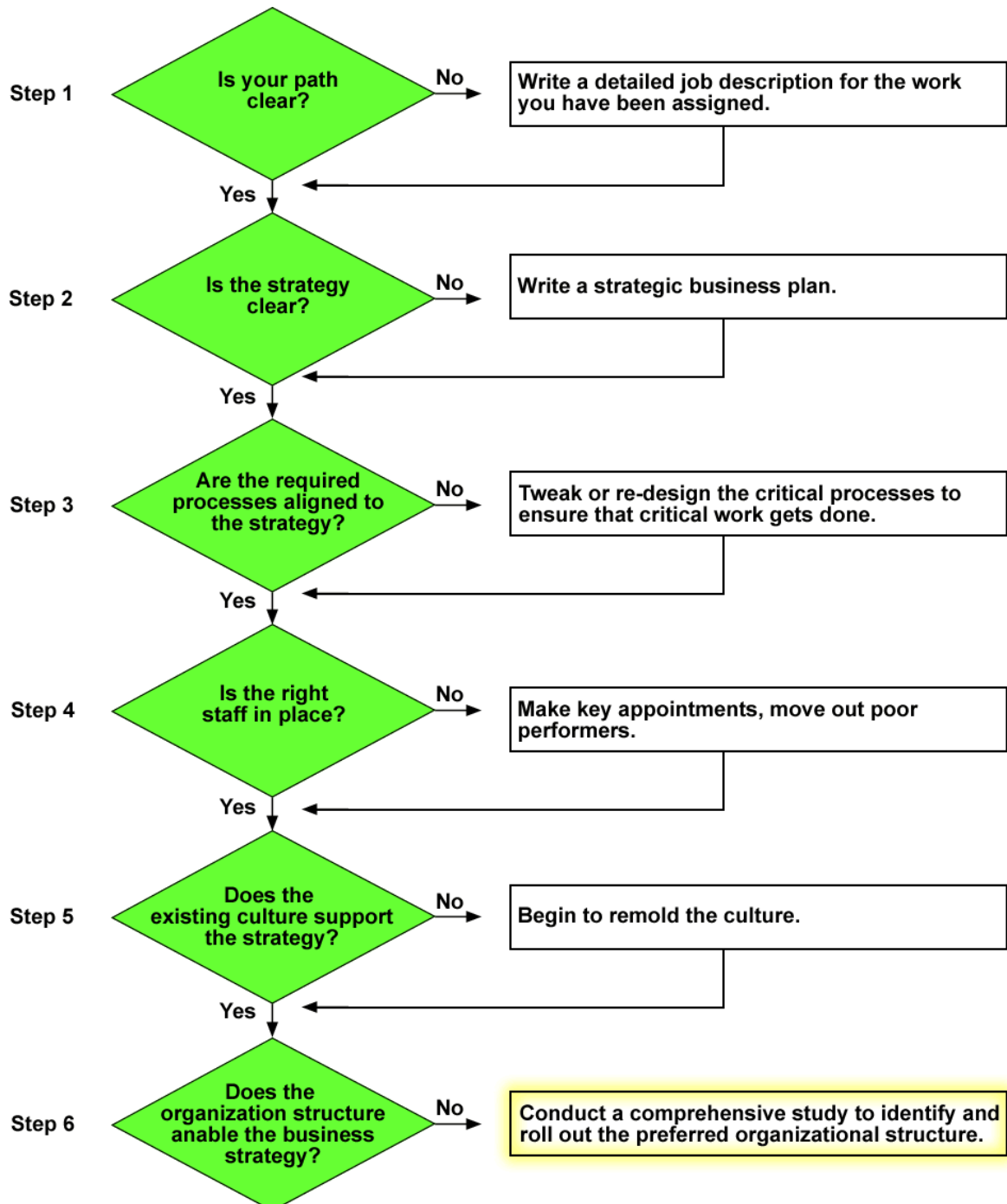


Figure 9. Considering the organization change

Before making any organization structure change, we must be aware that

- ✦ no organization structure is perfect
- ✦ any organization structure will fail without the right people and management process
- ✦ the more complex an organization is, the longer it takes to settle in
- ✦ transition time from the current organization to a future one can be shortened by the amount of time spent up front to achieve role clarity
- ✦ once the preferred organization is known, it is best to implement it as quickly as possible
- ✦ iterative structures might be required to reach the ideal organization structure if the right people or process are not available or in place, but this requires significant management resolve to hold the course

## 5. Model for transition of functional to more project-oriented structure

To redesign organization structure, we need to clarify the business drive(s) (from business strategy), what is working and not working (by reviewing current processes and staff) and what has to be changed or fixed. Then we evaluate alternate structures and provide the rationale for each: this is time to play with the arrangement of boxes, assigning scope and responsibility to each box and standing back and speculating on the pros and cons. After determining the preferred structure it has to be tested for viability and changed to satisfy expectations. Identifying the cost/benefits follows and is very important, since structure change costs a lot more than we first expect.

Assessing potential people for key jobs has to be done very carefully. Those people must handle the new scope and responsibilities.

After all above, we have to handle with the critical first stage of notification. Some of the not so obvious support actions are not evident until this phase and we have to account them. "There are always bumps in the road" - means that development, support, test and evaluation must be continuously applied to improve business.

The higher a leader sits in an organization the more quickly he or she tends to move through the change process. Because they can see the intended destination even before others learn the race has begun, senior managers can forget that others will take longer to respond to the transition: letting go of old ways, moving through the neutral zone, and, finally, making a new beginning. This effect is called "Marathon effect" (see figure 10.)

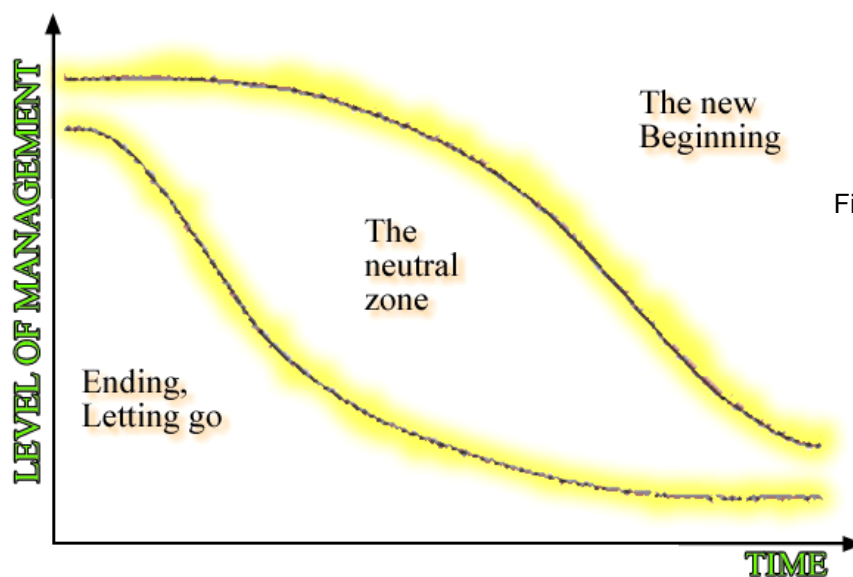


Figure 10. The marathon effect



Project of organization structure change has to move on parallel with development of employees' behaviour. As figure 11. shows, for successful change, it is necessary that employees realize the need of the new structure at already to have knowledge and ability to exopt it, at the moment the structure is implemented. Otherwise, changing the structure won't have the expected effect, since employees are those who must play.

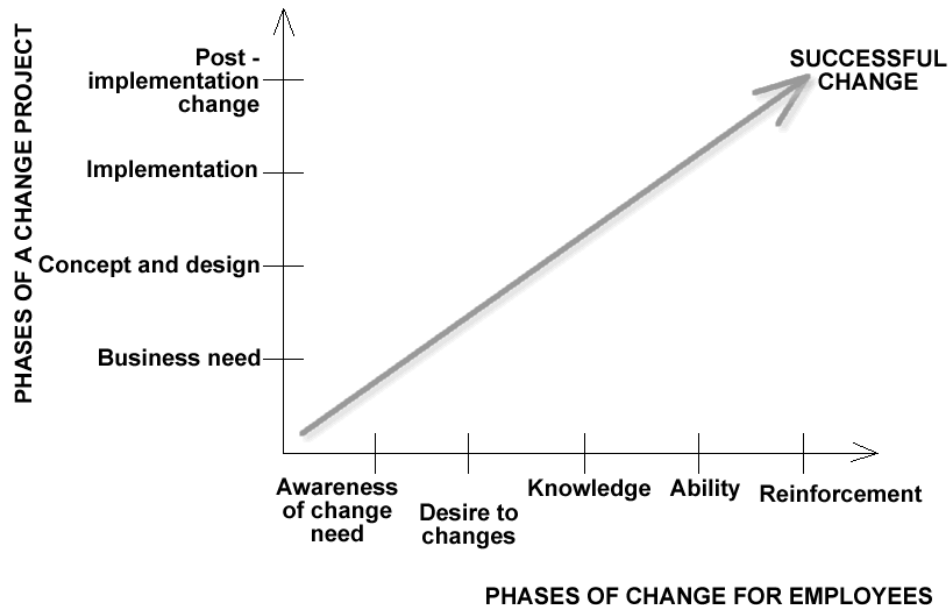


Figure 11. Phases of change – employees and project to be changed

Although the details of a transition management plan are unique to each situation, the adviser must help a leader and there are some main steps in most of transformations of non-project to more project oriented organization structure:

- ✚ Assign Project Managers – functional managers are replacing with project management responsibilities, except in those cases where we retained functional leads as part of new structure. We do that when the department managers or supervisions are the ideal choice for supervision project activities because they are the strongest technical personnel in that area. Then we identify deliverables and associate accountabilities for each project team.
- ✚ 2. Re-define Roles and Responsibilities – establish policy statement that clearly identified the project manager and functional manager roles and responsibilities.
- ✚ 3. Revise Resource Staffing Processes – by involvong functional management in project initiation activities, recognizing that functional managers often have the best insight into the skill and limitations of staff members, we make the process of assigning resources to roles more collaborative. We have to instituted a formal requisition process for internal resources as well.
- ✚ 4. Revise Performance Management Processes – this means that Project Managers are added to the performance development process training classes and required to provide periodic performance – related information on Functional Managers. At the same time, Functional Managers now shared individual goals and objectives with project maagers, seeking to align project assignments with objectives. Functional managers continued to administer performance development processes.
- ✚ 5. Establish a Communication Plan. A comprehensive program communication plan has to be developed, identifying who reports to whom, and when. We acknowledge the information needs to the functional management team by including them in the communications plan. Project websites have to be established to facilitate communications.

- ✚ 6. Obtain Senior Executive Support. Senior executive support for changes has to be secured. We have to institute active steering committee. This step ensures alignment of functional and program goals: functional managers support programs, which in turn implement the business goals.

Continuous monitoring of the process and climate of the organization is reinforcing the transition. This is an ongoing challenge, not a one-time event. When a crisis arises, the organization will tend to lapse back into functional management accountability, as opposed to staying within program structure. Pay close attention to the communications and collaboration aspects of the program ; reinforce use of the agreed upon communications plan. Remain sensitive to the communication needs of multiple geographic sites, if any. Continuous learning and reinforcement needs to be provided, since functional managers are still learning to include project managers in staffing decisions, while project managers are still learning to include functional managers in problem resolution activities.

## 6. Conclusion

*GE Lighting has closed 26 of 35 warehouses and replaced 25 customer service centers with one new, high-technology operation. Those buildings and stockpiles—physical assets—have been replaced by networks and databases—intellectual assets. Thomas Stewart, "Pursuing the Knowledge Advantage," Fortune.*

Studies approve [3,4] that the project team and the project matrix are rated as the most effective organization forms of project management. Construction industry is not an exception. The shift towards competitive global markets demands faster change and response from the subject organizations. Under these circumstances, the traditional functional organization is not the best structure. Traditional functional organizations have frequently had to form project teams to respond rapidly changing market conditions.

What will be with the project in the future? Modern organization structures are different from traditional. There are no geographical limitations. Seems like almost every organizational structure will change in heterarchy, in which projects and customers' need will be the basic points to business organization and performance, in construction as in any other industry. Projects will be furthermore in the centre of any successful business.

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