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Organizational structure: A case study on concrete production sector

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Abstract
Organizations can be set up in many ways to reach different targets. Size and scale of the business type significantly effect the structure of an organization. During the creation part of an organization, relationship between the project person takes a great importance to achieve the goals. In this study, three types of organizational structures as functional, vertical, and vertical-staff models were applied to the project people on the concrete production sector. Barriers and drivers on the applicability of each models for concrete producers were carefully analyzed. Functional model was found as the best applicable organizational structure for concrete production sector.

Keywords: Organizational structure; concrete production sector; case study

1. Introduction

A structure can be defined as the relations among each part of an organization. Human body is composed of the relations between the organs, blood, and bones [1]. Organizational structure draws the frame of the relations among people to achieve the projects targets. An organizational structure also includes project tasks and coordination processes [2]. Organizations generally create the structural schemes to control workers' actions [3]. Organizational structures do not only include the coordination efforts; but also deal with the all organizational processes [4, 5].

Today, three types of organizational structures are widely implemented: functional, vertical, and staff-vertical types [6]. The functional structure is also referred as bureaucratic model and separates all workforces depending on the specialization areas of the workers [7].
Vertical organizational structures can be count as the most preferred structures in all over the world. This type is mainly dependent to hierarchy relations [8]. On the contrary, vertical-staff model is commonly implemented in specific projects and its usage is very limited in global world [9].

The organizational structures have three dimensions as hierarchy, functional and inclusion dimensions. Hierarchy dimension includes ranks of the organizational unit. And functional dimension reflects the work task types. Inclusion dimension can be defined as the distance of each person in an organization [10].

Every company must have a well-defined structure in order to achieve the targets efficiently. Project leader must set up the organization charts following the project scale and size [11]. An efficient organization chart helps a project leader for delegating authority and responsibility.

Companies with a proper organization structure have the following gains:

- •Companies can be focused on the strategic goals instead of basic agenda.
- •Workers' skills can be enhanced.
- •The organization can be properly grown.
- •Each responsibilities and roles can be clearly defined
- •Resources can be effectively controlled [12].

Without a proper organizational structure, it is difficult to find the responsible causes of the negative factors: poor communication, reduced productivity, poor business decisions.

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2. Material and method

Functional, vertical and vertical-staff organizational types were applied to the workers of the concrete production projects. Barriers and drivers on the applicability of each models for concrete producers were carefully analyzed. The organization schemes have been set up with the aim of being the most effective of the hierarchical and authority sharing of the quality management system to be applied in the production facility. It is structured in such a way that the managers can see guidance in their future work. When these models are preferred, the worker in the lowest floor has planned to carry out the responsibilities precisely defined by the duties and authorities of the highest executive.

3. Model applications and results

Vertical organization structure was applied to the Fig. 1. When the production facility and the site organizations are evaluated together in the vertical organization model, it has been found that the decision mechanism goes ahead very quickly. Managers have the workload of the managers has increased. And, due to the scope of the task, the managers have not been worker management system as seen in more opportunities to increase their skills because they are working without help in the jobs they handle. On the other hand, due to the growth of the business volume within the organization, fully specialized.

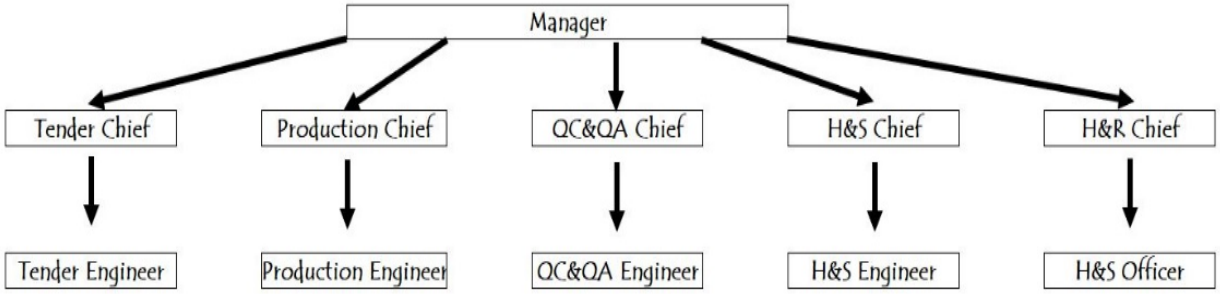

Figure 1 Vertical organization structure.

Total amount of agricultural solid waste in Turkey is 40-55 million tones (Energy potential is around 15,5 mtoe). Conventional biomass plays a considerable role in energy production in Turkey. Wood is used as a major resource for directly cooking and heating in rural regions but its use for energy production from modern biomass is rather new. Only 43% of total recoverable biomass is consumed for energy production [13-25]. Figure 4 shows the wood production areas in Turkey.

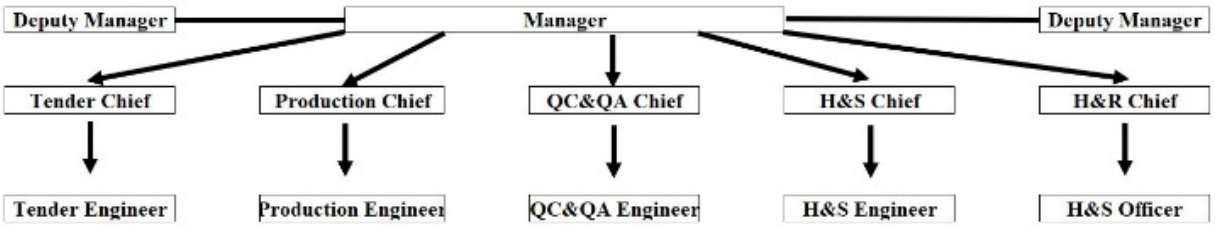

Figure 2. Vertical-staff organization structure.

Measures were taken to reduce workloads by employing assistants to managers who have a very broad scope of work. The assistants were hired in the fields according to their ability. It has been found that the problems experienced in this system are mostly realized between managers and assistants. Administrative assistants have been waiting for what they want to do without regard for their business conditions. The managers wanted to act in line with their own thinking systems and met major problems. The organizational models were revised, and the functional organization model was experimented, and more successful results were obtained with the other systems. Functional organization structure was given in

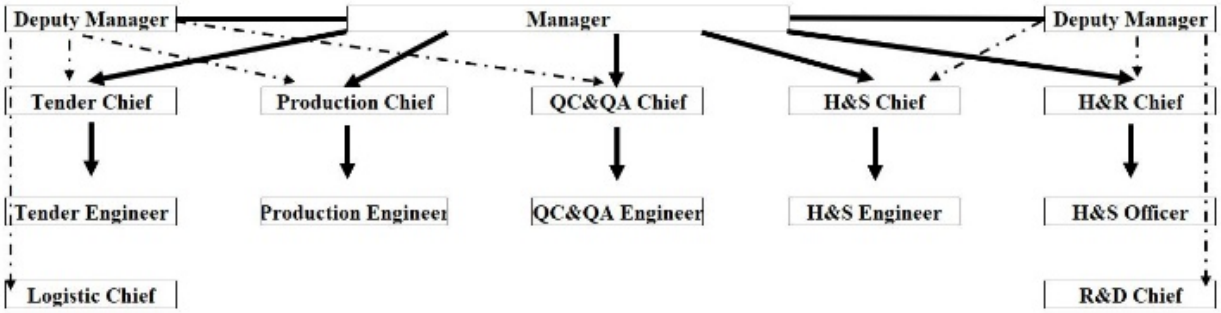

Figure 3. Functional organization structure.

A flexible and harmonious working environment was provided. Employees have increased their personal satisfaction because they are working towards their abilities. The greatest negativity that was found is the potential to create an authority void in this system. Functional assignments must be continuously updated in line with the requirements of the project and the projects implemented.

4. Conclusion

The conclusions of implementation of three different organization structures to the concrete production works can be drawn as follows:

- Three types can be used for all concrete companies; however, choice of the system significantly depends on the scale and size of the projects.
- Vertical organizational structures enable managers to increase their skills, since they are working without any assistances. However, the managers have not been fully specialized, due to the scope and size of the projects.
- Major problems can be met between managers and assistants when the vertical-staff model is selected. The main reason was found as the neglection of whole business conditions by assistant managers.

A flexible and good synergy based working conditions was obtained with functional organizational structure. Employees have increased their personal satisfaction with the implementation of this system. However, this system needs periodical updates depending on the chancing market and project conditions.

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