

# **DELEGATION AND SPAN OF MANAGEMENT IN THE CONSTRUCTION INDUSTRY**

**Adnan Enshassi, Ph.D**  
**Faculty of Engineering**  
**Islamic University of Gaza**  
**Gaza Strip - Palestine**

**Ammar. P. Kaka, Ph.D**  
**School of Architecture**  
**Liverpool University**  
**Liverpool, UK**

67

10 5

30 25

**ABSTRACT**

Little has been written in the literature about the effectiveness of delegation and span of management in the construction industry. Construction works are relatively labour intensive, therefore, managers consider manpower as the main resource for building projects and should be managed effectively. The data in this study are collected from sixty seven construction managers by means of interviews and discussions. Those managers are involved in managing housing, schools, health centers, roads, water and sewerage projects in Gaza Strip.

The objective of this paper is to examine the issues relating to delegation and span of management in the construction industry in Gaza Strip. The relationship between delegation, managers' efficiency and work productivity is discussed. The findings reveal that inadequate delegation of authority has caused significant work disruption. Construction managers are overworked and their foremen and workers became frustrated. Lack of delegation has led to a decrease in managers efficiency and work productivity. It has been found that a manager can cope with ten subordinates and a foreman can deal with thirty five construction workers.

**KEYWORDS :**

Delegation, span of management, efficiency, manpower, construction industry, productivity.

**INTRODUCTION :**

In developing countries the construction industry is relatively labour intensive. Effective management is required to optimize the

utilization of manpower in order to improve the performance process in construction projects. An important factor that may determine the effectiveness of the use of work force is the relatively enduring associations that are established between all individuals in the project.

In any organization people normally work together to achieve a specific goal. The structure of an organization is dependent on the interpersonal relationships between supervisors and subordinates. These associations may specify the number of subordinates that any supervisor in any organization can effectively supervise. The interpersonal relationships in construction organization play an important role in defining the procedure and level of delegation that can be given.

Construction has many features common to both manufacturing and service industry as it does not accumulate significant amounts of capital when compared with industries such as steel, transportation, and petroleum. Construction industry is highly fragmented and sometimes divisive, this requires from local contractors to mobilize their resources more quickly. In order to complete a construction project on time, at the right budget, and high quality, local construction companies need to improve their organizational and management structure, increase social, economic, and environmental constraints, and improve the interrelationships between all individuals involved in the project.

The aim of this paper is to study the issues of delegation and span of management in construction projects in Gaza Strip - Palestine. The relationships between delegation, managers efficiency and work productivity are discussed.

### **COMPANY ORGANIZATION STRUCTURE :**

In Gaza Strip the majority of construction companies are not well organized. In an effective organization, it is necessary to write down who does what, otherwise construction managers lose sight of the whole picture and jobs are forgotten, or duplicated. The purpose of a construction organization's structure is to ensure that the work

activities are allocated rationally, that there are effective links between roles and that work force are properly supervised and co-ordinated. It facilitates control by creating a communication network of instructions and feedback (Fryer, 1985).

When designing or improving a construction organization, project managers should ensure that (Fryer, 1985 & Mintzberg, 1973).

- 1-Task and responsibilities are allocated to work groups and individuals, which should include direction over work methods and resources.
- 2-Individuals are grouped into sections or units and should be integrated into the skeleton.
- 3-Formal relationships are set up, spans of management specified, and the number of managerial levels decided.
- 4-Jobs and activities are clearly defined, but are not too rigid.
- 5-Authority is delegated and procedures are set up for monitoring its use.
- 6-Communication systems are created, improving information flow and co - ordination system.
- 7-Procedures are developed for performance measurement and reward policy.

Structural weakness in construction organizations could lead to several problems such as; too much paperwork , employees are overloaded with work, poor or late decisions, inability to cope with change, low morale, industrial conflict, increased cost and lack of competitiveness (Fryer, 1985 & Miller, 1967). In order to design the best organizational structure for a particular project , it should be focused on the design of project activities and on organizational design.

The design of project activities starts by trying to break all activities down into simple manipulative elements. These elements should ergonomically be recombined in order to maximize the efficiency with which individuals can perform them (Woodwork, 1965). The number of employees at each level in the organization hierarchy should be determined by scientific. The number of first -

line works in a construction organization is determined by the technology that is to be used, and the number for supervisors needed can then be accordingly recommended. It has been found that an appropriate span of control in the construction firm hierarchy is one supervisor to five or six subordinates (Harris, 1977).

The choices of organizational structure which may be appropriate for construction firms are many and depend on several factors such as the size of the firm, its geographical location, the type of work being done, and the managerial and technical skills available. Most organizations, however, are hierarchical. They are made up of a series of tiers, each having authority over the levels beneath it. The number of levels in the hierarchy may vary from two in a small building firm to a dozen or more in some large construction organizations. The size of the firm largely dictates the number of tiers, although management may decide to widen spans of control to limit the number of levels (Fryer, 1985 & Stoner, 1973).

Organization charts tend to over simplify relationships as there is a limit to the amount of information they can show. In fact, they tend to emphasize vertical relationships in the organization, rather than horizontal. They stress the formal links, rather than the informal. They are static and may quickly become out of date. Therefore, organizations need to be flexible, as flexibility is a vital dimension in project management. The ability to adapt to change may be the most important factor affecting the success and survival of many organizations (Lewis, 1984). The most frequently organizational forms which are generally used for managing construction projects are : functional, project, and matrix organization (Enshassi, 1997).

### **DELEGATION :**

Managers in construction organizations are required to coordinate and utilize all available resources to achieve a particular objective. In order that one person is not overwhelmed by having to

deal with too much detail at all levels in an organization there must be delegation. Delegation is the process of conferring the authority to carry out certain functions on employees at a lower level of the organization (Pilcher, 1992). The delegation of particular authority is one means of securing the coordination of individual efforts, by allotting the right to make decisions and to issue instructions governing the work of others.

It seems unreasonable of managers to be unable to delegate authority to others which may result in a decrease in their efficiency and the productivity. When duties are delegated within an organization, the terms and limitations of authority and responsibility that are being delegated must be clearly and precisely delineated.

Some scholars believe that delegation is an aspect of directing people (Frayser, 1995). It involves passing authority down the management hierarchy. The supervisor tells employees what must be achieved but at the same time gives them a degree of freedom to choose their own methodology. Many managers find it hard to delegate, with the result that they are overworked and their subordinates become frustrated.

Delegation means giving subordinates more control over their work. Many people believe that managers should do a lot more to involve employees in deciding work methods and allocating tasks within their groups. Delegation is considered vital to staff development as it provides subordinates with new experiences at a measured pace suited to their abilities and ambitions (Tannenbaum, 1968).

Authority is the right to make decisions, direct the work of others and give orders (Bonny, 1973). A manager might delegate authority to a supervisor so that he/she can take some decisions, direct the work of others and give orders. Delegation always entails the subordinates becoming accountable to their superiors for the performance of the tasks assigned to them.

The subordinates can be assigned some degree of responsibility but the ultimate responsibility still resides with the superior. Authority

can be delegated but responsibility cannot (Bonny, 1972). Responsibility without authority is frustrating, and authority without responsibility is pernicious. Without delegation of authority the span of management of an individual in an organization can become too great. Unless a superior is willing to exercise less control and trust a subordinate, delegation is not possible in any thing other than name.

### **SPAN OF MANAGEMENT :**

The concept of span of management became important in traditional management theory because organizational structures based on a vertical flow of authority and responsibility depend upon a supervisor/subordinates relationship. The span of management relates to the number of subordinates that a supervisor can manage effectively. It has been suggested that it should be as small as five, however many organizations operate quite successfully with as many as fifteen subordinates reporting to one supervisor (Pilcher, 1992). Therefore, there appears to be little or no clear direction as to how broad or narrow a span of management should be. This concept is a difficult one to resolve and it depends on the depth of the control exercised.

A construction company either grows or declines. If it expands, then the company should develop its structure, necessitating differing levels of management. It is essential that management be prepared to delegate responsibility with some authority to subordinates. Practice has shown that a manager can cope with between five and eight subordinates reporting to him (Lamarie, 1975).

Where span of management may be widened, this might create communication problems, weaken senior management control and in the long run increase overheads. The more levels in the hierarchy, the harder it is to distinguish between the duties and responsibilities of people at different levels. This may restrict the scope in which subordinates show initiative, thereby reducing their motivation and job satisfaction. A small organization can opt for a shallow structure with few levels of management, while a large organization may opt for maximizing the span of management to prevent the structure

becoming too tall. However, there are limits beyond which effective supervision becomes very difficult (Fryer, 1985 & Armstrong, 1977).

The supervisor's span of management will also depend on the work and the people involved. Routine, repetitive jobs may require less supervision than complex, non - routine tasks, but this also depends on the skills and capabilities of the employees. The span of management can be widened if the supervisor is sufficiently able, if his subordinates are competent and willing, and if both parties share the same workplace. It has been suggested that at the lower levels, a foreman may be able to deal with twenty to thirty workers, but at a higher level a superintendent should not have to deal with more than five to six foremen (Dressel, 1968).

The appropriate span of management for any specific circumstances will tend to be a dependent variable. Its value will be influenced by a number of other factors. These factors may include the proximity of workers to one another and to the supervisor, their accessibility, their skill levels, the nature of the work that they are doing and the technology involved. These may affect the number of workers that any supervisor can deal with.

#### **THE STUDY :**

The data in this study were collected from sixty seven construction managers who were involved in managing housing, roads, water, sewerage, schools and health centers projects in Gaza Strip. Table 1 shows the level of experience of respondents and the type of projects they were involved in. The projects studied were of small to medium size and were funded by the World Bank and other countries, like Saudi Arabia, Switzerland, France, and USA.

**Table 1 : Type of projects and experience of respondents**

Type of	No. of	Year of experience	Member of
---------	--------	--------------------	-----------

Project	respondents				Prof. Inst.	
		1-5	6-10	11-15	Yes	No
Housing	31	8	16	7	2	29
Roads	8	3	3	2	1	7
Water & Sewerage	11	6	2	3	--	11
Schools	12	5	3	4	2	10
Health centers	5	2	3	--	--	5

Field visits were made to different construction sites as well as contractors head offices. On sites, the interviews, were held with construction managers and supervisors. The interviews were mainly concerned with the following issues :

- The extent to which delegation is practiced in construction projects.
- The relationship between delegation and managers efficiency, and work productivity.
- The problems that influence delegation practice.
- The span of management and the factors which influence it.

The discussion were recorded and analysed carefully in order to present the results and recommendations for the construction industry professional in Palestine.

### **RESULTS :**

The results of this study indicate that there is very limited delegation practice in the construction industry in Gaza Strip - Palestine. Twelve respondents (18%) in twelve construction firms said that delegation exists in their firms, but it is to some extent confined. These were mainly firms that worked jointly with international organizations in Palestine. These respondents confirmed

that there was an increase in their efficiency and work productivity as a result of practicing more delegation. The study shows that fifty five (82%) construction firms in this sample did not practice delegation practice. Table 2 shows the effect of delegation on managers efficiency and work productivity.

**Table ( 2 ) : Effect of delegation on managers efficiency and work productivity**

<b>Delegation</b>	<b>No. of Subjects</b>	<b>% of Subjects</b>	<b>Managers Efficiency</b>	<b>Work Productivity</b>
<b>Yes</b>	<b>12</b>	<b>18</b>	<b>Increased</b>	<b>Increased</b>
<b>No</b>	<b>55</b>	<b>82</b>	<b>Decreased</b>	<b>Decreased</b>

Project managers in these firms felt that delegation was an important issue, and they suggested that it should be put into practice. Some managers (72%) stated that they could not cope with the large amount of work that they have to accomplish. Therefore, their efficiency and work productivity decreased. Other managers (28%) insisted that, they could effectively manage projects without delegation. They believed that they had to control every single issue in order for the activities to proceed successfully.

Several problems have been found which influence delegation practice in Gaza, these are :

- Managers consider that they can perform work better themselves and so do not allow their subordinates to do anything of consequences.
- Managers lack confidence in their subordinates.
- Managers are not prepared to take a chance and delegate.
- Managers feel that delegation to subordinates might result in a job threat from the subordinates.
- The trust is not mutual between managers and subordinates.

With regard to the issue of span of management in the construction industry in Gaza, it was difficult to establish a clear cut figure as it was influenced by a number of deferent factors. The following factors were found to have an effect on the span of management :

- 1-Nature of task : routine, repetitive activities require less supervision than more complex, non-routine activities. It has been found that in routine activities, a manager can cope with ten subordinates, and foreman can deal with thirty five skilled workers. In a non-routine works a manager can cope with seven subordinates and a foreman is capable of dealing with twenty two construction workers. It has been suggested that the skills and capabilities of the labour force also plaid an important part.
- 2- Skills level of managers and supervisors : it has been observed that a manager who has more experience than others can cope with eleven subordinates, and an experienced foreman can deal with thirty workers. A manager who has limited professional experience can cope with five subordinates and a foreman is capable of dealing with twenty construction workers.
- 3- Willingness and competence of subordinates : it has been found that when foremen are competent and willing to cooperate, a manager can cope with eleven foremen; if there is little cooperation from foremen a manager can deal with six foremen. If construction workers are competent and willing to work hard, a foreman is capable of dealing with up to thirty five workers; if construction workers are not competent and have not strong willingness to work for some reasons, a foreman can deal with twenty two workers.
- 4-Availability of construction materials: in Gaza Strip, there often is a great difficulty in importing materials because of the frequent border closure due to political reasons. In such circumstances, local construction companies have reduced the number of construction workers in each group and foremen were also reduced although the

span of management could be larger. Table 3 shows the factors affecting span of management of managers and foremen.

**Table 3 : factors affecting span of management of construction managers and foremen**

Factors affecting span of management		Construction Managers span of management	Foremen span of management
Nature of task	<b>Routine</b>	<b>8 - 10</b>	<b>30 - 35</b>
	<b>Non-routine</b>	<b>5 - 7</b>	<b>18 - 22</b>
Skills level of construction managers and foremen	High skills level	<b>7 - 11</b>	<b>25 - 30</b>
	Low skills level	<b>4 - 5</b>	<b>15 - 20</b>
Willingness and competence of foremen and construction workers	<b>Willingness</b>	<b>8 - 11</b>	<b>30 - 35</b>
	Less - Willingness	<b>4 - 6</b>	<b>15 - 22</b>
Availability of construction materials	<b>Available</b>	<b>6 - 10</b>	<b>25 - 30</b>
	<b>Not - available</b>	<b>1 - 3</b>	<b>10 - 15</b>
Availability of funds	Funds available	<b>6 - 10</b>	<b>25 - 30</b>
	<b>Funds not available</b>	<b>1 - 3</b>	<b>10 - 15</b>
Continuity of Projects	Possible continuity	<b>6 - 10</b>	<b>20 - 30</b>
	less- possibility	<b>1 - 3</b>	<b>10 - 15</b>

5- A viability of funds : the results of this study indicate that in more than forty construction projects in Gaza, the clients were found unable to provide the contractors with the required installments. The clients (governmental and non-governmental organizations) receive normally the funds from international donors

like the world Bank or the European Community. In many cases, the money was not available in local banks due to complex administrative procedures or due to political reasons. This situation forced the local contractors to decrease the number of workers in each working group and also to reduce the number of foremen reporting to one manager (see table 3).

- 6- Continuity of projects : it has been observed that when contractors expected to get more projects, they try to keep all construction workers and supervisors. Although there was a possibility to reduce the number of subordinates (which may decrease the span of management), contractors preferred to keep all their staff to avoid any new recruitment that may require special training, see table 3.

In general, the findings revealed that a manager in Gaza Strip can cope with between five to ten subordinates, and a foreman can deal with between twenty five to thirty five construction workers depending on the situation.

### **CONCLUSIONS :**

The purpose of this study was to examine the issues of delegation and the problems associated with its practice. The issue of span of management and the factors which may influence it was discussed. The issue of delegation and its relation to managers efficiency in construction projects was also examined. The findings revealed that inadequate delegation of authority has caused work disruption, and construction managers were overworked and their foremen and construction workers became frustrated. In many situations, decisions have been restrained by requirements for approval by directors remote from problems. This have delayed actions and caused extra costs and loss of confidence in management, which has led to the failure of many projects.

The major problems which restricted the practice of delegation have been identified. These are :

- \* Managers consider that they can perform work better themselves and so do not allow their subordinates to do anything of consequences.
- \* Managers lack confidence in their subordinates.
- \* Managers are not prepared to take a chance and delegate.
- \* Managers feel that delegation to subordinates might result in a job threat from the subordinates.
- \* The trust is not mutual between managers and subordinates.

It is recommended that directors and managers should learn how to practice delegation and trust each other. This can be achieved by organizing a training course in delegation skills. Delegation of authority should be given to people who have the ability and experience to make decisions delegated to them. Delegation will assist in staff development, raise the motivation, and encourage the creativity of subordinates. At the same time, this will increase the efficiency of managers and improve the work production. It is advised that local construction firms should work jointly with international firm in order to get more experience in managerial practice.

In the construction industry in Gaza, practice has shown that a manager can cope with between five to ten Subordinates reporting to him, and a foreman can deal with between twenty five to thirty five construction workers. However, the appropriate span of management for any specific circumstances will depend on a number of factors. These factors are : nature of task, skills level of managers and foremen, willingness and competency of construction workers, availability of projects. Some factors are beyond managerial control, as they are dependent on the political situation such as availability of materials which are imported from other countries and availability of funds.

**Acknowledgment :**

The authors wish to acknowledge the British Council in Gaza Strip and Jerusalem for supporting this study.

## REFERENCES

- 1- Armstrong , M., 1977, A handbook of personnel management practice, London, Kogan Page.
- 2- Bonny, J.B., and Frein J.P., 1973, Handbook of construction management and organization , NY, McGraw Hill.
- 3- Dressel, G., 1968, Organization and management of a construction company, McLaren.
- 4- Enshassi, A., 1997, Site organization and supervision in housing projects in Gaza Strip, paper published in the International Journal of Project Management, Vol. 15, No. 2, 1997..
- 5- Fryer, B., 1995, The practice of construction management, Collins, England.
- 6- Harris, F., and Mc Caffer, R., 1977, Modern construction management, London, Granada.
- 7- Lamarie, M., 1975, Insight on management, Building technology and management , Vol. 13, No. 6.
- 8- Lewis, T.M., 1984, A review of the causes of recent problems in the construction industry of Trinidad and Tobago, construction Management and Economics, Vol. 2.
- 9- Mintzberg, H., 1973, The natural of managerial work, New York , Harper and Row.
- 10- Miller, E. and Rice, A. K. 1967, Systems of organization , London, Tavistock publications.
- 11- Pilcher, R., 1992, Principles of construction management, McGraw - Hill, U.K.
- 12- Stoner, J.A. , 1973, Management, Englewood cliffs Prenti Hall.
- 13-Tannenbaum, R., and Schmidt, W.H., 1973, How to choose a leadership pattern, Hrvard Business Rview, Vol. 51, No . 3.
- 14- Woodward, J, 1965, Industrial organization: Theory and Practice, London, Oxford University press