

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Management Department Faculty Publications

Management Department

1968

Leadership Techniques in the Project Organization

Richard M. Hodgetts

Follow this and additional works at: <https://digitalcommons.unl.edu/managementfacpub>



Part of the [Business Administration, Management, and Operations Commons](#), [Management Sciences and Quantitative Methods Commons](#), and the [Strategic Management Policy Commons](#)

This Article is brought to you for free and open access by the Management Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Management Department Faculty Publications by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Leadership Techniques in the Project Organization

RICHARD M. HODGETTS
University of Nebraska

Project managers, because of their inherent "authority-gap", have developed a handful of techniques for supplementing their authority. The importance of these techniques will often vary with the dollar-size of the undertaking.

The project organization has been in use for thousands of years. Its precise origin is unknown, but the pyramids and Roman aqueducts bear witness to its long history. In recent years a new impetus has been given to the project organization through its application in such areas as aerospace, chemicals, and state government, to mention but a few.

One major problem has been cited consistently in studies made of the project organization: while the functional managers have line or direct authority over their subordinates, the project managers must work through the respective functional managers, who supply the team personnel, in running their projects. The project managers have an "authority-gap" because they do not possess authority to reward or promote their personnel.¹ They lack complete authority over the team and thus possess what is called "project authority." Because their responsibility outweighs their authority, the project managers must find ways of increasing their authority and thus minimizing their "authority-gap."

The purpose of this research has been to ascertain what techniques are relied upon by project managers to overcome their "gap." The initial interviews illustrated some common techniques, and the questionnaire survey elaborated upon and extended these findings. The results show an interesting trend in leadership techniques used by project managers.

¹David I. Cleland, "Why Project Management?" *Business Horizons*, VII (Winter, 1964), 84.

RESEARCH METHODOLOGY

Two steps were employed in researching these leadership techniques. First, four project organizations, in different industries and undertakings, were visited and interviews were conducted with the project manager. Second, a list of firms known from a recent study² to be using project management were sent questionnaires. In all cases the term "authority-gap" was explained and prime emphasis was placed on the question, "What techniques do you employ in overcoming your authority-gap?"

INTERVIEWS

Project management is an organizational structure capable of being used in virtually any industry. For two reasons, therefore, an interindustry approach was undertaken: first, to obtain as comprehensive a list of techniques as possible, and second, to ascertain the existence of any overlap in the answers given. The four firms chosen were located in the following respective fields: aerospace, construction, chemicals, and state government.

Aerospace

In the aerospace firm, the project manager was reliant on the respective functional department heads who supplied his team to support him in directing his personnel. It was common knowledge in this firm that success on previous projects, or good results with the present one, would lead to strong support from the functional heads. Thus, the project manager felt that proving his competence was the key technique or objective to be sought in overcoming his "authority-gap."

Personality characteristics also played a key role in his relationship with the functional organization, however. A good example of this was that the project manager had the authority to return to the respective functional manager any members he felt were incompetent. Since he had no intention of injuring his relationships with the functional manager by sending back the individual and casting doubt on the latter manager's judgment, he attempted to persuade the functional manager to replace the individual of his own volition. The project manager felt that if he could not tactfully persuade the manager to take the individual back, it was usually better to leave the person on the project.

Another area where personality played a key role was in persuading the functional managers, such as those in manufacturing, to give the project certain priorities so it would not fall behind schedule. Once more,

²Richard Michael Hodgetts, "An Interindustry Analysis of Certain Aspects of Project Management" (unpublished doctoral dissertation, Management Department, University of Oklahoma, 1968), p. 174.

a good personality opened the way for project success. The project manager *had* to persuade the functional managers to help him, and he in turn *had* to reciprocate where possible. Thus, to obtain maximum project support from the functional organization, the aerospace project relied on the following four techniques — *technical competence, powers of persuasion and/or personality, the ability to negotiate, and reciprocal favors*. By exercising his strengths in these areas, the project manager found he was greatly able to overcome the “authority-gap” which existed.

Construction

In the construction firm there were many aspects of project management similar to those of aerospace. The necessary personnel were provided by functional departments to assist the project manager; he had the right to reject personnel assigned to the project; and he exercised great caution in rejecting personnel assigned.

Although he did not have line authority over all his personnel, however, his “right” to exercise authority seemed to be taken for granted, and the need to “earn” his authority did not play as great a role as it did in aerospace. While the project manager in aerospace appeared to put great stress on getting along with the functional personnel because they were so important to the project, the construction project manager ran his project as virtually an autonomous unit. There were two reasons why this was true. First, the construction project manager had most of the facilities he needed at his disposal; in aerospace they were much too expensive, since they were specialty items, and thus the project manager was reliant on the functional organization to provide them. Second, the largest proportion of the construction workers was hired from the local area and the project manager had line authority over them. The aerospace project manager was not in this position for his team was assigned from other functional departments. Hence, the construction project manager had both line and project authority. However, he did feel that, as the aerospace project manager, the techniques for overcoming his “authority-gap” were *technical competence, persuasion and/or personality, negotiation, and reciprocal favors*.

Chemicals

In the chemical firm the project manager was assigned not to a contract, as is typical in aerospace and construction, but rather to a specific intercompany undertaking, such as a chemical process. The project was similar in several ways to the first two. The project manager was responsible for obtaining the necessary equipment from the functional departments and for controlling his personnel by working through the functional managers. Although similar to aerospace and construction in these respects, the necessity for his earning his authority played a very minor role,

due to the fact that the outside pressures from customers were non-existent, the budget and time constraints were not great, and excellent support was received from the functional managers. The existing autonomy permitted the project manager to perform his assignment, having to manifest only two of the techniques heretofore mentioned — *technical competence* and a *persuasive personality*. These characteristics served to motivate the team personnel, establish a strong *esprit de corps*, and insure support from the functional managers.

State Government

In the state government interview, the Vocational Rehabilitation Agency was focused upon. The prime objective of this group is to put together by 1975 a master plan for vocational rehabilitation services for the state.

The project manager had four coordinators who worked with volunteer groups throughout the state. The volunteers were concerned with researching the state's needs and ascertaining its resources in the area of vocational rehabilitation services. It was the project manager's function to see that the groups were coordinated, and the volunteer workers who make up the groups gave continued impetus to the project. The role of the volunteers was important, but it differed from other project teams in that they were not under anyone's direct authority and, since they were volunteers, they had to be treated with extreme tact and diplomacy. One of the best ways to obtain the desired performance was to work through the people chosen as informal leaders by their respective groups. Persuading these leaders to keep their group together and to carry out the assigned research was primary to project success. As the volunteers began to participate, a sense of accomplishment was developed, and the project manager found it easier to earn his authority over the group. Thus, a dynamic *personality* and *powers of persuasion* were the important managerial techniques in overcoming the "authority-gap."

These interviews brought out techniques that the respective project managers felt were vital to supplement the authority given to them. These techniques closed the "authority-gap" to such an extent that the project manager was able to effectively manage the project. The following matrix illustrates the results of the interviews:

MATRIX 1
Leadership Techniques for Overcoming the "Authority-Gap"

	Aerospace	Construction	Chemicals	State Government
Negotiation	X	X		
Personality and/or Persuasive Ability	X	X	X	X
Competence	X	X	X	
Reciprocal Favors	X	X		

It is evident that there is overlap between the four projects regarding techniques for overcoming the authority-gap. Yet, was this list comprehensive? To answer this a questionnaire survey was undertaken.

QUESTIONNAIRE SURVEY

Fifty-six firms were mailed a two-page questionnaire containing a definition of the term "authority-gap" as well as the results of the four interviews. The four techniques for overcoming the "gap" were described to the project managers and they were asked to indicate whether they felt each was "very important," "important," or "not important." Each was also asked to list other techniques he employed in overcoming his "gap."

Eighty-three per cent of the firms responded and gave the following answers regarding the four previously ascertained techniques.

MATRIX 2
All Questionnaires

	<i>Very Important</i>	<i>Important</i>	<i>Not Important</i>
Negotiation	48%	44%	8%
Personality and/or Persuasive Ability	40%	56%	4%
Competence	45%	53%	2%
Reciprocal Favors	6%	41%	53%

The results were then broken into three groups for the purpose of analysis. Into the first group were placed aerospace questionnaires; into the second were placed construction questionnaires; and into the third were placed all other responses. The reason for the latter was the lack of homogeneity and thus the inability of the writer to further divide them. They proved to be quite similar in response, despite the diverse nature of the projects included. A breakdown of the questionnaires revealed the following:

MATRIX 3
Aerospace

	<i>Very Important</i>	<i>Important</i>	<i>Not Important</i>
Negotiation	26%	65%	9%
Personality and/or Persuasive Ability	39%	57%	4%
Competence	52%	48%	0%
Reciprocal Favors	10%	37%	53%

MATRIX 4

Construction

	<i>Very Important</i>	<i>Important</i>	<i>Not Important</i>
Negotiation	44%	44%	12%
Personality and/or Persuasive Ability	50%	37½ %	12½ %
Competence	33.3%	67.7%	0%
Reciprocal Favors	12.5%	37.5%	50%

MATRIX 5

All Other Responses

	<i>Very Important</i>	<i>Important</i>	<i>Not Important</i>
Negotiation	77%	17%	6%
Personality and/or Persuasive Ability	35%	65%	0%
Competence	41%	53%	6%
Reciprocal Favors	0%	41%	59%

The latter three matrices indicate that the majority agreed that the use of reciprocal favors was generally "not important" as a technique for overcoming the "authority-gap." Total agreement ended at this point. The aerospace responses, in the main, felt that negotiating ability was "important," while construction responses were evenly divided between "very important" and "important," and the third group ("other") felt this ability was "very important." Aerospace and "other" project managers felt that personality and/or persuasive ability was "important," whereas construction felt it was "very important." Finally, the construction and "other" project managers felt that competence was "important" whereas aerospace felt it was "very important." Why this difference of opinion occurred was not the objective of this research. Its purpose was merely to ascertain that these four criteria were relied upon by project managers as techniques for overcoming their "authority-gap." The answer appears to be "yes," although the technique of reciprocal favors was not relied upon very heavily.

The final section of the questionnaire requested a listing of any other techniques the project manager felt were important to him in establishing his authority. The list can be divided into two groups, those responses putting emphasis on the human relations side of the problem and those putting emphasis on the use of formal authority. The following are indicative of the responses given.

Human Relations Oriented

1. "The project manager must make all the team members feel that their efforts are important and have a direct effect on the outcome of the program."
2. "The project manager must educate the team concerning what is to be done and how important its role is."
3. "Provide credit to project participants."
4. "Project members must be given recognition and prestige of appointment."
5. "Make the team members feel and believe they play a vital part in the success (or failure) of the team."
6. "By working extremely closely with my team I believe that one can win a project loyalty while to a large extent minimizing the frequency of authority-gap problems."
7. "I believe that a great motivation can be created just by knowing the people in a personal sense. I know many of the line people better than their own supervisor does. In addition, I try to make them understand that they are an indispensable part of the team."
8. "I would consider the most important technique in overcoming the authority-gap to be understanding as much as possible the needs of the individuals with whom you are dealing and over whom you have no direct authority."

Formal Authority Oriented

1. "Point out how great the loss will be if cooperation is not forthcoming."
2. "Put all authority in functional statements."
3. "Apply pressure beginning with a tactful approach and minimum application warranted by the situation and then increasing it."
4. "Threaten to precipitate high level intervention and do it if necessary."
5. "Convince the members that what is good for the company is good for them."
6. "Place authority on full time assigned people in the operating division to get the necessary work done."
7. "Maintain control over expenditures."
8. "Utilize implicit threat of going to general management for resolution."
9. "It is most important that the team members recognize that the project manager has the charter to direct the project."

Thus, the responses fell into two main categories. On the one hand, some project managers said that by putting emphasis on their relations with the team, its *esprit de corps* could be improved and maintained at a high level. On the other hand, some project managers felt that the use of formal controls, job descriptions, the superior's "right" to command, and the use of the hierarchical organization should be relied upon. It has heretofore been assumed in the management literature that this latter approach was naive because there was an inherent "authority-gap" with which the project manager had to cope. Now, there are some project managers insisting (or recommending) that it can be eliminated almost entirely through formal means. A further analysis of the companies who supported either of these views (or who took a middle-of-the-road position) revealed the following information:

TABLE 1

	<i>Human Relations Oriented</i>	<i>Recommended Using Both of These Alternatives</i>	<i>Formal Authority Oriented</i>
Aerospace	5 firms with projects valued at \$39 million. Average: \$7.8 m.	4 firms with projects valued at \$195 million. Average: \$48.75 m.	11 firms with projects valued at over \$1.6 billion. Average: \$140 million.
Construction	1 firm with a project valued at \$10 million. Average: \$10 m.		4 firms with projects valued at \$61 million. Average: \$15.25 m.
All Other Firms	8 firms with projects valued at \$36 million. Average: \$4.5 m.	4 firms with projects valued at \$91 million. Average: \$22.75 m.	4 firms with projects valued at \$21 million. Average: \$5.25 m.

Table 1 indicates that, in almost all instances, firms having large projects (from a dollar standpoint) supported greater use of formal authority, i.e., a defining away of the "authority-gap" through job descriptions and formal controls. Small projects (from a dollar standpoint) recommended just the opposite. There appears to be a good reason for this. There is a correlation between the dollar size of the project and its manpower size.³ Thus, larger projects have more team members, and the project manager undoubtedly finds a human relations approach too unwieldy and time consuming. The larger the project, the more crises he has to deal with. Hence, he does not have time to concern himself with this concept of the "authority-gap." Therefore, it is important that it be largely overcome before the project gets under way. Large projects tend to do just this. A project manager on a \$100 million project reports, "The team members report to me and I am responsible for their raises and promotions."

A project manager on a multi-billion dollar project comments:

. . . it would appear to be vital . . . that the organizational environment, into which the project manager is placed, be such that he need not depend entirely on negotiating ability, a dynamic personality, etc. to perform his most important job. For this reason the organization of a project, in a manner to give the project manager the control he needs over the area of budgeting, planning, and scheduling, becomes a basic consideration. The organization must be so designed that the project manager indeed does control the people assigned to the project, in the sense they are responsible to him. Thus, the organization gives the project manager his authority so he can divide more of his time to obtaining the schedule, cost, and technical performance goals of the project.

Managers of smaller projects tend to be more human relations oriented and to work more within the framework of making the worker feel a part of a team. Having fewer people to handle, they have the time to devote to

³*Ibid.*, pp. 81-86.

this activity. Thus, there is a pattern concerning the techniques favored by the individual project managers.

CONCLUSION

This research study indicates that there are numerous techniques for overcoming the "authority-gap." As the project manager starts trying to increase his authority over the project, he begins to utilize a host of different managerial techniques. Four of these have been ascertained through the interviews and verified in the questionnaire. They were the use of negotiation, personality and/or persuasive ability, competence, and the use of reciprocal favors.

However, the surprising aspect of this study has been the uncovering of the fact that in projects of varying magnitude the "authority-gap" was handled differently. In small projects it was overcome by the project manager who used varied techniques, as enumerated in this paper. In large projects, it was defined away through the charter given to the project manager. He was given virtually complete authority over the project.

Thus, while the first three leadership techniques listed above were considered of importance and reciprocal favors were considered of some importance, there do not appear to be any other universal techniques. Rather, the technique(s) is a function of the project size, and importance as well as the amount of time the project manager has to devote to dealing with the gap. In conclusion, it appears that while the "authority-gap" is to be reckoned with by the project manager, it is of far greater importance to small projects where techniques must be improvised to overcome it, and of far less importance to large projects where the project manager's charter gives him virtually all the required authority to operate the project on an autonomous basis.