

Series on general management functions and activities, and their relevance to the management of projects¹

Article 4 of 7

Management Leading Function and Activities

By Alan Stretton

BACKGROUND TO THIS SERIES

General management provides the foundation for building project management skills and is often essential for the project manager. On any given project, skill in any number of general management areas may be required. General management literature documents these skills, and their application is fundamentally the same on a project. (PMI 2004:15)

This is the fourth in a series of seven articles which are primarily concerned with filling in some gaps in the coverage of general management in the project management literature. The widely acknowledged importance of general management to the management of projects is reflected in the lead quotation.

This series presents a broad coverage of traditional/ classical materials on general management. Its intention is to help project managers fill in gaps in their knowledge of relevant general management issues, either directly, or by guidance to sources for more detailed coverage of particular general management materials.

Another aim of this series is to look at various ways in which the functions and component activities of general management are relevant to the management of projects. I have tended to focus on materials that I have found to be most relevant and/or useful in over sixty years' experience in both general management and project management.

The first article of the series (Stretton 2015g) proposed a management knowledge framework, whose main functions are summarized on the right. The second article (Stretton 2015h) developed the "basic" function of management planning, and the third article (Stretton 2015i) discussed management organizing.

This fourth article discusses the function of management leading, and its component activities, *management decision making*, *management communicating*, and *management motivating*, and discusses their relevance to the management of projects.

"BASIC" MGT. FUNCTIONS
<ul style="list-style-type: none">• PLANNING• ORGANIZING• LEADING• STAFFING• IMPLEMENTING/ CONTROLLING
"TECHNICAL" MGT. FUNCTIONS

¹ This series of articles on the relevance of general management activities and functions to project management is by Alan Stretton, PhD (Hon), Life Fellow of AIPM (Australia). Alan is a pioneer in the field of professional project management and one of the most widely recognized voices in the practice of program and project management. Long retired, Alan is still accepting some of the most challenging research and writing assignments; he is a frequent contributor to the **PM World Journal**. See his author profile at end of this article.

MANAGEMENT LEADING

Definitions and components of management leading

Management Leading: *the work a manager performs to cause people to take effective action* (Allen 1964:239)

Allen 1964 identified five components of management leading, as indicated on the right. However, this series will follow the primary break-down of Koontz & O'Donnell 1978, and discuss *selecting* and *developing* people separately in the next article, under the heading of **staffing**. This article will discuss the following activities of management leading.

MANAGEMENT LEADING
Decision making
Communicating
Motivating
[STAFFING]
Selecting people
Developing people

- **Management decision making:** the work a manager performs to arrive at conclusions and judgments.
- **Management communicating:** the work a manager performs to create understanding.
- **Management motivating:** the work a manager performs to inspire, encourage and impel people to take the required action

MANAGEMENT LEADING OVERVIEW

The above components of management leading were shared by many contributors to the classical/traditional literature, with the possible exception of management decision making, which some put into the planning category – e.g. Koontz & O'Donnell 1978, and Kerzner 1979. Here we will stay with Allen's classification.

There is a very substantial amount of material on management leading, and leadership, in the classical/traditional management literature. However (as is not uncommon in the general management literature), there is only partial consensus on many issues.

Morris 2013:199-200 lists several theories of leadership, but then notes that these can be grouped into two main schools of leadership thinking, which he calls "universal" and "contingency" (and which some others have called "traits" and "styles" respectively).

"Universal" or "traits" viewpoint of leading

This view of leadership suggested that there are enduring leadership traits which apply in all situations. The trait approach attempts to produce a profile of personality characteristics that leaders possess.

Many such listings have been produced, but as Mukhi et al 1988 observed,

Various studies of the traits of leaders suggest that a in a wide variety of situations effective leaders show greater supervisory ability, task motivation, mental ability and decisiveness. But the studies are not all consistent and some traits may be beneficial in only a limited range of situations.

As Hunt 1979:92 noted,

Because of the shortage of people with the Greek-god profile suggested by trait theory, style theory has superseded trait theory.

“Contingency” or “styles” viewpoint of leading

Morris 2013:200 says that “contingency” theories suggest that leadership styles are, or should be, contingent on the task, the business need, the environment, and the people needing leading – i.e. leadership styles and behaviour change depending on the different needs of the situation.

In similar vein, Hunt 1979: 91-92 pointed out that the personality of a manager is merely one variable in leadership effectiveness. Other factors include

- The situation he has to manage and his perception of it
- The people in that situation and their perception of it
- The organizational constraints on the situation

Reddin 1970 focused on the first two elements – the task to be done, and the human relationship skills needed to see that the task is accomplished. Reddin describes them, in order, as Task Orientation (TO), and Relationships Orientation (RO) and represented combinations of the two in a model as shown in Figure 1, with his shorthand names for each of the four styles. I have added the style numbers used by Blake & Mouton 1964 (the centre was (5.5)).

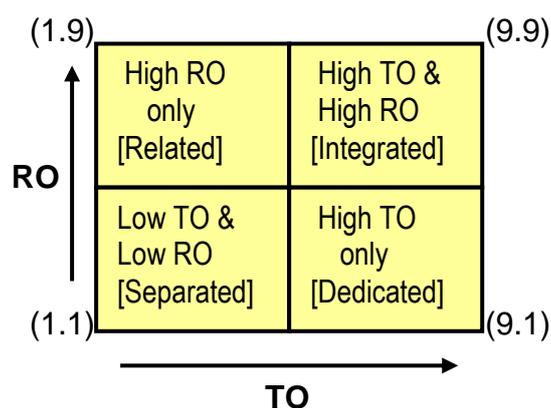


Figure 4-1: Reddin's TO/RO diagram & named styles, + Blake & Mouton's numbered styles

Blake & Mouton's model, in particular, was rather prominent for some time. These models were more flexible and situation-oriented than a well-known earlier model of McGregor 1960, who focused on two different management assumptions about human nature – Theory X (pessimistic), and Theory Y (optimistic).

However, as noted above, most people in the general management domain have since opted for matching the management/leadership style with the situation.

Leadership in the project management context

Coverage of leadership in the project management literature varies substantially. Some contributors consider leadership to be of paramount importance in the project context. A relatively recent example comes from Naughton 2013, who nominates three major skill sets that tomorrow's project leader needs to possess, as shown in his Talent Triangle.

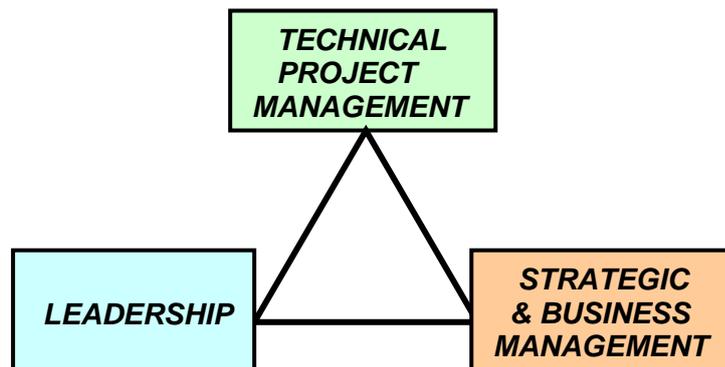


Figure 4-2: Naughton's Talent Triangle (modified from the original)

The APMBok (APM 2012:68-71) has a "Leadership" topic within its broader section on "Interpersonal skills". It mainly discusses broader general aspects of leadership, before only briefly talking about its applicability in projects, programs, and portfolios. The PMBOK Guide (PMI 2013:284) also has little to say specifically on leadership in the project context. In both cases, the strong implication is that leadership as it applies in traditional organizations is seen as equally applicable in the project context.

Whilst there are contributions to both the "traits" and "styles" viewpoints of project leadership in the project management literature, there appears to have been more attention given to various aspects of the "styles" perspective.

Different project types need different management leadership styles

An early and well-known contribution to this was due to Shenhar 1995, who described appropriate management leadership styles and attitudes for two groups of what he called dimensions of projects. One dimension was described in terms of technological uncertainty at the time of the project's initiation, and this had four types of projects. The other dimension was described as the system scope dimension, which had three levels.

We briefly describe these dimensions below, together with the appropriate management leadership styles recommended by Shenhar.

TECHNOLOGICAL UNCERTAINTY DIMENSION	MANAGEMENT LEADERSHIP STYLE
A. Low-Tech Projects rely on existing well established base technologies, with no new technologies – e.g. many construction projects	Firm style. Management sticks to initial plan.
B. Medium-Tech Projects rest mainly on existing base technology but add some new technology or feature – e.g. projects to modify existing products	Moderately firm style. Ready to accept some changes
C. High-Tech Projects where most technologies are new, but were developed prior to project start – e.g. many projects in computers, defence	Moderately flexible style. Expecting many changes.
D. Super High-Tech Projects based mainly on new technologies, some emerging, others unknown at time of project initiation – relatively rare.	Highly flexible style. Living with continuous change, and 'looking for trouble'.
SYSTEM SCOPE DIMENSION	MANAGEMENT LEADERSHIP STYLE
1. Assembly A collection of modules and components combined into a single unit, which may be a sub-system, or an independent unit – e.g. radar receiver; CD player.	Mostly informal style; family-like atmosphere
2. System A complex collection of interactive elements and sub-systems within a single product, to meet a specific operational mission or need – e.g. radar; computers	Formal and bureaucratic style. Some informal relationships with sub-contractors and customers.
3. Array A large, widely dispersed collection of different systems that function together to achieve a common purpose ("supersystem") – e.g. air defence system	Formal and tight bureaucracy

Table 4-1: Two project dimensions and appropriate leadership styles – based on materials from Shenhar 1995

Different leadership styles are needed for different project life-cycle phases

In the project context, Morris 2013:200 reports that

Jeff Pinto of Penn State University has shown clearly that effective project management leadership needs to vary depending upon the stages of the project, the task, and/or the level of organizational support.

In Lend Lease we were very conscious of the differences in leadership styles required for different phases of the project life cycle, and did our best to try and ensure that appropriate arrangements were in place.

There are layers of leadership in the project context

Leadership in projects and programs is multi-headed, not least because so much of the project work is team based. (Morris 2013:201)

In Lend Lease we had had many project managers who were flexible in being able to adjust their leadership style to the situation. However, we also had our share of project managers who were either dominantly task oriented, or markedly relationships oriented. However mostly these project managers were still effective even though they didn't appear to do much in the way of changing their styles to suit the situation.

This appeared to be because other key members of their project teams had complementary leadership styles, so that there was, in total, a reasonably balanced mix of styles over the whole project.

This type of situation may well also apply in a general management context, but would appear to be particularly relevant to project management.

Summary of management leading overview

There is broad agreement in the general management literature that the management leadership style used should match the situation and people involved. There is no one best style for all situations.

In the project context, this is seen to be equally relevant. For example, Shenhar has advocated many different management leadership styles for particular types of projects.

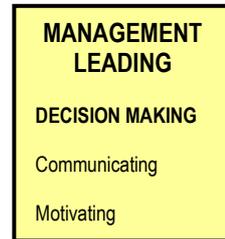
Another example comes from Pinto, who has shown that different stages of the project life-cycle will normally benefit from different leadership styles.

Additionally, it is important that the key project team members collectively have the management leadership styles appropriate for the project as it progresses through its life cycle.

In this series I am treating management leading and its component activities in rather more detail than some of the other general management functions. This is mainly because the project management literature tends not to cover this topic in as much detail as it does some of the other management functions, such as planning and controlling.

MANAGEMENT DECISION MAKING

Management Decision-making: *The work a manager performs to arrive at conclusions and judgments* (Allen 1964:247)



The aspects of management decision making we will be looking at in this sector are

- Problem solving
- Limits of rationality
- Participation in decision making
- Conflict management

Problem solving sequence

Management decision making is typically represented by problem-solving sequences. Allen 1964 had the following six-step sequence:

1. What is the apparent problem?
2. What are the facts?
3. What is the real problem?
4. What are the possible solutions?
5. What is the best solution?
6. What course of action shall we follow?

What is the real problem? What are the possible solutions? What is the best solution?

These are the key elements of this sequence. The importance of ascertaining the real problem is enshrined in Allen's Principle of Definition, which says that a logical decision can be made only if the real problem is first defined. In discussing "What are the possible solutions?" Allen 1964:258 said:

Our need ... is to consider and analyse as many possibilities as we can develop, including the obvious ones ...

Problem solving in the project context

In this problem-solving context, it is first noted that Turner 1993:20-22 discussed viewing the project's purpose as a problem, and applying structured methods for problem solving to its management. He goes on to discuss a ten-step problem solving cycle, and managing processes deriving from it. Some of these coincide with the classical/traditional management functions used in this series.

Returning now to the above problem solving sequence, there are two areas in the project life cycle in which this general management-sourced sequence is particularly relevant, but in quite different ways.

Project initiation phase(s)

The first area is the project initiation phase(s). In the context of finding “the real problem”, the focus in Lend Lease was on thorough needs determination, and then on determining the “right project” to satisfy those needs. This involved developing alternative approaches, and particularly innovative ones, to establish the “right project”. The cultural norm at the time was, “There is always a better way – let us find it”.

Project implementation phase(s)

The second area is the project implementation phase(s), where time constraints are very often a real impediment to finding the real problem. As Kerzner 1979 remarked,

... the time constraints on the project often prevent ... a logical approach.

My own experience as a trouble-shooter in the implementation phase of building projects was that it was often, indeed typically, impossible to isolate “the real problem”.

This was partly because of time constraints and the need to do something quickly, and also because of the complexity of most of the problem situations I came across. You did the best you could to put a shape to the problem, and then looked for ways of overcoming it. But the reality was that a “quick and dirty” solution was often the only practicable approach.

There are no specific topics on management decision making or problem solving in the APMBok (APM 2012), and only a brief discussion in the PMBOK Guide (PMI 2013:284). Evidently the application of problem solving skills in project management is seen to be much the same as in general management.

Limits of rationality

Peters & Waterman 1982:29-54 devoted a whole chapter to discussion of a “misplaced emphasis” on “the rational model” of management.

...the central problem with the rationalist view of organising people is that people are not very rational. ...

We reason by stories at least as often as with good data. “Does it feel right?” counts for more than “Does it add up?” or “Can I prove it?” (p 58)

This viewpoint is supported by Kast & Rozenzweig 1981:343.

Traditional prescriptions for managerial functions are left-brained, but that, according to his observations, top management is largely an intuitive function. The approaches of the managers he observed seem to be relational and holistic rather than logical and linear, step-by-step actions.

Allen seems to have had these at least partly in mind when he discusses “making use of the subconscious” in helping generate solutions to problems.

In the project context, my own experience has been that the “does it feel right?” question is extremely important. When one does not have sufficient time on a complex project to do a thorough job of fact gathering and examination of alternatives, this is probably the key question one asks before committing to action.

Participation in decision making

Allen 1964:258-9 discussed the desirability of getting participation in the decision making process. There are several models in the classical/traditional management literature re decision making styles with participation by subordinates or group members – e.g. Lippitt 1982:115, as follows.

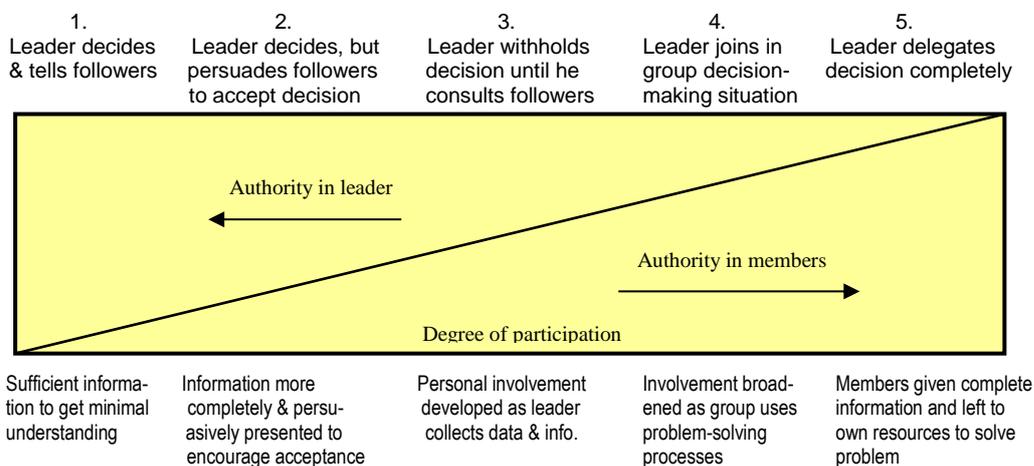


Figure 4-3: Lippitt's 1982 decision-making / participation model

There is an interesting point to be made regarding an Australian (myself) commenting on American contributions on participation in decision making. There are significant differences between the two cultures in this context, which were highlighted by an American, Renwick 1980:45, as follows.

Australians are quite collaborative in their orientation. They believe quite strongly that decision-making procedures should be based upon management's assumption that subordinates share equal interests, organizational goals, and success; they should be consulted on major organizational decisions in order to reach a total organizational consensus.

Americans, however, are somewhat less collaborative. They are inclined to believe that subordinates have less to contribute to organizational decisions and less right to make demands on management or the organization.

In the project context, and in relation to participation in decision making, in their survey of research findings on project management, Baker & Wilemon 1977 found that,

The degree of participative decision making and esprit de corps have considerable impact upon not only the human aspects of the project management environment but also on the perceived success of projects.

In the building and construction industry, the principal concern in the construction phase is the solution of various, often complex technical matters, usually involving the selection or design of methods (Borcherding 1976). A perceived consequence of this continual problem solving in construction is that building workers must, and do, participate dynamically with others in solving problems and getting the work done. This form of natural participation tends to be in-built in that industry.

Conflict management

There appear to be two somewhat different, if overlapping, contexts in which conflict management is discussed – at work interfaces, and personal conflict.

Work interface management

This context is the situation where interacting work groups have different objectives – normally legitimately conflicting objectives – which need to be resolved.

Cleland & King 1968:10-11 gave a nice example of the problem in the context of decisions about which products are to be produced and in what quantities. The production manager will achieve lowest costs by having long uninterrupted runs of few products before changing machine set-ups to produce different products. The sales manager would prefer to have large inventory of all products at all times to be able to promise early delivery of any product. The financial manager wants a small total inventory, as large inventories tie up money that could be used elsewhere. And so on. It is the manager's job to make decisions that are best for the enterprise as a whole, while recognising that they are unlikely to be the best for any of the individual components of the enterprise taken in isolation.

Indeed, Allen 1962:PM-1 gives a very good definition of a manager in this context.

....a manager ... [is] someone who is so placed organizationally that only he has perspective, objectivity, and balance with respect to the varying and sometimes conflicting needs of his subordinates.

In the project context, in the typically complex interdisciplinary project environment, the project manager is often called upon to make decisions arising out of the legitimately conflicting viewpoints or needs of various contributing specialists. Time constraints, particularly in the implementation phase, often make this a very demanding task.

Many writers regard such conflict resolution as a primary function of the project manager, as part and parcel of his integrating role. Kerzner 1979, at the beginning of a complete chapter on conflict, says that it "may be the single, most important characteristic of the project environment". He discusses this topic at length.

Baker and Wilemon 1977 said,

It is widely accepted that project environments produce inevitable conflict situations. Increasingly, the ability of project managers to handle these conflicts is being recognised as a critical determinant of successful project performance.

This is still a very lively topic in more recent project management literature. The latter includes Morris 2013:208-209, and the APMBOK (APM 2012:56-59). The PMBOK Guide (PMI 2013) does not include the topic in its knowledge areas, but lists conflict management in Section 2.4: Key General Management Skills, without discussion.

Inter-personal conflict

Once again, writing as an Australian commenting primarily on American-sourced management literature, it should be noted that Australians and North Americans have substantially different attitudes and behaviours in conflict situations. As I noted in Stretton 2015j, Renwick 1980:48-49, put it this way:

Americans do not like conflict, especially interpersonal conflict. They are uncomfortable in the midst of it and concerned about others' opinions of them after having engaged in it. Americans are, therefore, inclined and even determined to avoid being involved in direct conflict themselves and they have a variety of means (personal, legal, and organizational) for doing so.

Australians, however, tend not to mind conflict and, in fact, sometimes enjoy it, intentionally engage in it, and even respect others who carry it off with style and results. Australians are more accustomed to conflict and more resilient in the midst of it. They are also less concerned about negative reactions from those with whom they come into conflict.

I had very direct experience of this many years ago, when I was asked to help resolve a dispute between the Australian and American staff of a Lend Lease operation headquartered in Dallas, Texas. It turned out that the main problem was the very different attitudes to conflict and its resolution between the two groups, but which had not to that point been recognized by either group.

Summary of management decision making

In the general management literature, decision making is typically represented by problem-solving sequences. Key elements include identifying the real problem and generating alternative solutions.

In the project context, such sequences are equally relevant. For example, in project initiation phases, "identifying the real problem" can be seen as involving thorough needs determination, and looking at alternative approaches to satisfying these needs, before specifying the right project to do this.

However, in project implementation phases, time constraints often prevent fully logical decision making. The “real problem” is often impossible to isolate. A “quick and dirty” solution is sometimes the only practicable approach. On fast-moving projects, “Does it feel right?” can often be the best indicator. This reflects comments made in the general management context, which appear to be even more relevant in the project context.

In general management, participation in decision making can vary from none to full delegation.

In the project context, I do not know the extent to which this may or may not apply. However, I do know that, in the construction industry, building workers must, and do, participate dynamically with others in solving problems and getting the work done. This form of natural participation tends to be in-built.

With regard to conflict management, general managers typically have to make optimizing decisions arising from (often legitimately) conflicting views of subordinate departments or people.

In the project context this is equally relevant. The project manager frequently has to make optimizing decisions re the (often legitimately) conflicting viewpoints or needs of various contributing specialists. Many project management writers regard conflict resolution as a primary part of the project manager’s integrative function.

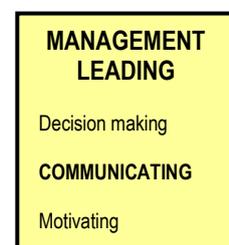
With regard to inter-personal conflict, different cultures may have very different ways of handling such conflict. It is sometimes not recognized by either group that such differences exist, and I cited differences between Australians and Americans as an example.

Overall, decision making processes appear to be much the same in both the general management and project management contexts, with the qualifier that the project environment is often faster moving, and some short-cut approaches may be necessary when time pressures are severe.

MANAGEMENT COMMUNICATING

Management Communicating: *The work a manager performs to create understanding.* (Allen 1964:272)

It is no exaggeration to say that communication is the means by which organized activity is unified. (Koontz & O’Donnell 1979:397)



There was a great deal written about management communication in the classical/traditional literature, which included topics such as formal and informal communications, barriers to understanding, four-directional communications, sender-receiver models, writing skills, presentation skills, meeting management, and choice of media.

There is also a considerable coverage of communications in the project management literature. For example, it is one of the ten knowledge areas covered by the PMBOK Guide (PMI 2013). It is also the first of the seven topics in a section on “Interpersonal skills”, which is, in turn, part of a major sector on “People”, in the APMBok (APM 2012).

As far as I can tell, all the management communications materials in the classical/traditional literature are applicable to projects, with only relatively minor adaptations to the particular context of projects. In the following, I am proposing to briefly discuss only a few aspects of management communicating which I have found particularly useful and/or relevant.

Focus on understanding

A key focus in Allen’s treatment of management communicating is that we want the receiver to understand what we are trying to communicate in the same way as we understand it. The difficulty of doing this is well recognised.

At a relatively sophisticated level, specialist writers Borman et al 1969:28 said that the sender must realise that

... whatever he wishes to send to another person is limited by the most basic empirical principle of communication, meaning is perception. Because his listener attaches his own meanings to words of the source, the sender must translate what he would communicate into what the receiver knows or is interested in. ... And when his message is decoded, all results depend upon what the listener perceives, the meaning he thinks is there, no matter what the source intended.

At a much less sophisticated, but very practical level, Allen proposed using the Rule of Four to facilitate understanding (Allen 1964:285).

1. Prepare listeners by telling them what you are going to say
2. Say what you have to say
3. Summarise what you have said
4. Get listeners to tell you what they understand

This has the additional advantage of helping listeners remember the communication. I used to consciously use this approach in presentations.

In the project context, the APMBok (APM 2012:52-55) has a specific section on Communication. Included in its definition of communication is the following understanding-related sentence

Successful communication occurs when the received meaning is the same as the transmitted meaning.

In the PMBOK Guide (PMI 2013:Ch.10) Project Communications Management is one of its ten knowledge areas. The focus is on communicating with stakeholders,

and one of its sections in particular, namely “Manage stakeholder expectations”, appears to be particularly concerned with ensuring mutual understanding.

Formal and informal communications

As Allen 1964:281 puts it, “Formal channels of communication ensure that only the proper people give orders and that there are no overlaps in authority”. Additionally, we have formal reporting mechanisms, which these days are generally called Management Information Systems (MIS). Mukhi et al 1988 say that three classes of systems are included within the concept of an MIS [my bullet points]

- Transaction level systems assist in carrying out the day-to-day activities of the organization, i.e. the lifestream of the business.
- Standard operating procedures guide employees in handling the transactions.
- The procedures are often embedded in computer programs that control the entry of data, processing of details, and storage and presentation of data and information

In project contexts, the PMBOK Guide’s knowledge area “Project Communications Management” is mainly concerned with formal communications processes. Discussions in the APMBOK have both formal and informal elements.

Allen believes that formal and informal communications are complementary, and that distinguishing between them is unhelpful. Both are concerned with the same end – better understanding. Never-the-less, informal communications are regarded as very important by many writers – e.g. Peters & Waterman 1982:121-122 say,

The nature and uses of communications in the excellent companies are remarkably different from those of their non-excellent peers. The excellent companies are a vast network of informal, open communications.

Later, they say (pp.218-219) [my bullet points]

In the excellent companies, there are five attributes of communication systems that seem to foster innovation:

- Communication systems are informal
- Communication intensity is extraordinary
- Communication is given physical supports (“the blackboard factor”)
- Forcing devices (e.g. fostering “wild ducks”; shaking up the system)
- The intense informal communication system acts as a remarkably tight control system (i.e. “lots of people checking up informally to see how things are going”).

Regarding informal communications **in the project context**, Chapman 1972 pointed out that NASA managers were expected to institute their own means for obtaining needed information and passing it along to affected parties. He went on to say that

In the order of frequency of use, the modes of information collection and exchange used by project managers are [my bullet points]

- telephone and ad hoc,
- informal person-to-person discussions,
- formal meetings such as contractor conferences, plant visits, regularly scheduled project staff meetings, design and status review meetings, and
- written reports, such as letters, memoranda, special reports

In like vein to NASA, the CEO of Civil & Civic during much of the 1960s and beyond would invariably “chew out” any project manager who did not make a real effort to find out what relevant experience was available elsewhere in the company when confronted with a substantial and novel (to him) problem on his own project.

Speaking of construction industry projects, Borcharding 1978 said:

The importance of the process of information flow, especially horizontal communication, cannot be denied nor can the process be considered as a secondary interest for a construction organization in that a great deal of the organization’s success depends upon it.

“Reader-writers” and “talker-listeners”

Some people have marked preferences for communicating in writing – “reader-writers” – whilst others are markedly “talker-listeners”. Some, of course, have no marked preference. But obviously, one would not deliberately choose the written word to communicate effectively with someone who is a known “talker-listener”. This is part of a broader guideline to effective communicating, which is to “know your audience”.

Regarding written communications, I have long advocated using short words, short sentences, short paragraphs, etc (although I must admit to not always having followed my own advice).

Summary of management communications

As noted above, all the management communications materials in the classical/traditional literature appear to be equally relevant to projects, with only relatively minor adaptations to particular projects contexts. I have briefly discussed only a few aspects of management communicating that I have found particularly useful.

MANAGEMENT MOTIVATING

Management Motivating: *The work a manager does to inspire, encourage and impel people to take required action.*
 (Allen 1964:263)

MANAGEMENT LEADING
Decision making
Communicating
MOTIVATING

Introduction

There are substantial materials on motivating people, and allied topics, in the traditional/classical management literature.

Most of these materials originated in the behavioural science school of management, which started in the 1920s, but whose main contributions appear to date from the 1950s and 1960s, as illustrated in Figure 4-4 below. (This is part of a broader overview of the evolution of various historical general management theories set down in the first article of this series – Stretton 2015g).

<p>TRADITIONAL THEORIES – “Classical” or “Functional” schools</p> <ul style="list-style-type: none"> • “SCIENTIFIC MANAGEMENT” (Taylor, d. 1915): Focus on efficient task performance • BUREAUCRATIC MODEL (Weber, d. 1920): Focus on authority and structure • MANAGEMENT PROCESS SCHOOL (Fayol 1916, Irwick 1930s, Allen 1960s, Koontz & O’Donnell 1970s) Espousing universal management principles: Focus on primary management functions – planning, organizing, leading, controlling <p>CRITICISMS: Rather mechanistic view of human behaviour; “top-down”; “closed-system” assumptions - e.g. little consideration for environment or customers; “principles” too general for practical guidance</p>	<p>BEHAVIOURAL SCIENCES – Human relations and associated schools</p> <p>Focus on people in the organization. Concern with psycho-social issues – i.e. psychological and social aspects. “Industrial social psychology”.</p> <ul style="list-style-type: none"> • Pioneered by Elton Mayo’s “Hawthorne Studies” (1920s – 1930s) • Motivation and satisfaction writers include Maslow 1954 (Hierarchy of needs); McGregor 1960 (Theory X & Theory Y); Herzberg 1966 (Hygiene and Motivational factors). • Other related topics include group dynamics, “sensitivity training” & “T-groups”; participative management, job enlargement, job enrichment <p>CRITICISMS: Overemphasis on psycho-social systems: “close-system” viewpoints tend to exclude economic, technical and environmental factors</p>
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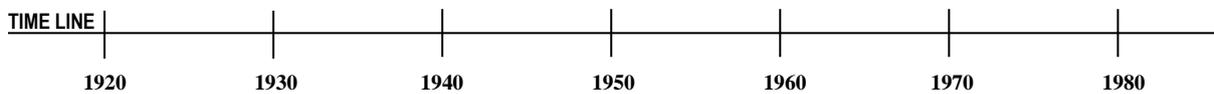


Figure 4-4: Some early general management theories

The behavioural sciences group was primarily concerned with people in the organization. Motivation is a very broad topic, and I will not attempt a comprehensive overview (although I have offered a comparison table of some of the theories in Figure 4-5 below). Instead, I will take a rather idiosyncratic approach, and discuss those aspects of management motivation in the general management literature which appear to be most relevant to project management, albeit in varying ways.

Self-motivation

Allen 1964:263 says that the most effective motivation is self-motivation. Elsewhere he suggests that “the manager’s proper sphere is the creation and maintenance of conditions that will facilitate people motivating themselves” (Allen 1962:L-22). Koontz & O’Donnell 1979:413 say that the manager’s “job is not to attempt to manipulate people but, rather, to recognize motivating factors in designing an environment for performance”.

Looking at self-motivation *in the project context*, I will start with my experience in Lend Lease. We did not have job descriptions or organization charts, but deliberately allowed each individual an enormous amount of freedom in choosing how to contribute. Invariably the individual would gravitate towards work that he/she was particularly good at, and enjoyed doing. From an organizational viewpoint, we were building on people’s natural strengths. From the individual’s viewpoint, they were using their strengths and enjoying it. If people are doing what they naturally do best, and this is contributing to organizational or project success, there are few problems with motivation.

Turning now to motivation in the construction industry at large, Borcharding 1976 pointed out that motivation of people on construction projects in the USA was not normally a problem. This was certainly my experience throughout a long working life in the construction industry in three countries.

My observation is that construction workers are normally strongly self-motivated. A key reason for this appears to be that they are producing concrete results (sometimes literally!), so that the fruits of their labours are continually evident, which is itself motivational. Indeed, the main problem we had is the potential for demotivating construction people by poor planning and/or organizing, which resulted in lack of continuity of work.

Motivating factors

We return to Koontz & O’Donnell’s observation that the manager’s

job is not to attempt to manipulate people but, rather, to recognize motivating factors in designing an environment for performance.

and briefly discuss motivating factors. There is a substantial literature on people and their needs in the organizational context. I have tried to summarise and align some of the most prominent of these in Figure 4-5 below.

In assembling this figure I have drawn on several sources. Unfortunately I am unable to acknowledge the source of the first and last columns, as I have lost the references (but would welcome advice on these). I also note here that errors in aligning these five contributions are mine alone – but these were useful to me, and I hope others may also find them useful.

Basic Drive	Mazlow's Hierarchy of Needs	Herzberg Motivation/ Hygiene Factors	McClelland's Needs	Gellerman Psychological Advantage (Aging)
<u>Psychological</u> Psychic income needed for satisfaction of higher needs	Self Fulfilment Self Actualisation	Motivator Factors (Satisfiers) . Achievement . Advancement . Recognition . Responsibility . Work itself	Need for Achievement	Later years (50-65) Motivated by prestige and pleasure of job well done
	Esteem needs (self-esteem & esteem of others) Ego or status			
	Social needs (affiliation and/or acceptance)	Hygiene Factors (Dis-satisfiers) . Relationships . Company policy & administration . Quality of supervision . Working conditions . Job security . Wages and benefits . Personal life	Need for Affiliation	Middle years (35 – 50) Motivated by titles and what others think of him/her
<u>Pecuniary</u> Money will satisfy these needs	Security and/or safety needs		Need for Power	Age of Youth (20 – 35) Motivated by money and pursuit of power
	Physiological needs (hunger, thirst, etc)			

Figure 4-5: Aligning various approaches to motivation

Maslow's (1954) Hierarchy of Needs is probably the oldest and one of the best known motivation models. Effectively the hierarchy is an ascending one. "Higher" needs become activated as "lower" needs become satisfied, and thence cease to act as motivators. Maslow's hierarchy has been criticised on a number of grounds, including its North American cultural bias (which appears to be a valid criticism). However many people, including myself, found it useful.

Herzberg 1966 found two distinctly different sets of factors that influence people in the workplace. The first he called "Motivator Factors", or "Satisfiers", which are factors that actively contribute to job satisfaction. Herzberg lists them as follows.

Five factors stood out as strong determinants of job satisfaction – achievement, recognition, work itself, responsibility and advancement.

Herzberg called the second set Hygiene Factors, or dis-satisfiers. In his words:

The major dis-satisfiers were company policy and administration, supervision, salary, interpersonal relations and working conditions.

Herzberg says people are not motivated by what he calls Hygiene Factors – but if these needs are not satisfied people are de-motivated. Further, it is asserted that the "motivator factors" will not become effective as motivators until the causes of dissatisfaction – i.e. the hygiene factors – have been effectively attended to.

McClelland 1961 identified three dominant categories of human motive, namely:

- the need for affiliation (n.Aff)
- the need for power (n.Pow)
- the need for achievement (n.Ach)

McClelland's main focus was on n.Ach

Turning now to motivating factors ***in the project context***, there is no specific discussion of motivation in either of the major project management bodies of knowledge, although the word appears from time to time, particularly in relation to leadership topics. The overriding implication is that they regard motivating factors are being fundamentally the same in both the general management and project management contexts.

This implication is partially refuted by Turner (1993:420-425) who discusses motivation of professional knowledge workers on projects, where

...functional hierarchies, distinctions of title, rank, symbols of power and status do not exist, so many of the factors that are traditionally viewed as providing value to motivate professional staff are no longer available. In the project environment, managers must find new motivational factors that will be valued by their staff.

Turner believes that Maslow's hierarchy of needs provides a basis for identifying motivational factors for knowledge workers, who are concerned with satisfying their needs for esteem and achievement. He goes on to nominate what he calls the five Ps: purpose, pro-activity, profit sharing, progression, and professional recognition.

However, many, if not most projects also involve non-knowledge workers, whose needs may be further down Maslow's hierarchy. The motivational factors that are relevant to them are probably little different to those in general management environments, which is what is inferred in the project management bodies of knowledge.

Principles of participation and delegated authority

Principle of participation: *Motivation to accomplish results tends to increase as people are given opportunity to participate in the decisions affecting those results.*
(Allen 1964:267)

Later, Allen 1973 carried this principle further, in his

Principle of Delegated Authority: *Motivation to accomplish results tends to increase as people are given authority to make decisions affecting those results.*

In the project context, Chapman 1972 describes the participative approach in NASA as follows.

Nearly every decision is the result of successive reviews and negotiations with systems managers, experimenters, functional managers, and headquarters representatives. But this shared authority brings the advantages of broader participation to cover technical and other problems in greater depth, as it brings a sense of responsibility by those participating to work for the common goal and refrain from aggrandising their own interests.

In the specific context of construction projects, Borcharding 1976 pointed out that

.... decision making already occurs at very low levels in the hierarchy. For example, foremen for subcontractors are often the top company representatives on a job, and are given the responsibility to get the work done on time and below estimate. Thus, participative decision making is a way of life in construction, and it is unlikely that it can become a significant motivator as indicated in manufacturing studies.

This encapsulates my long experience in the construction industry.

Summary of management motivating

As noted in the introduction to this section, motivation is a very broad topic, and I have not attempted a comprehensive overview (although I offered a comparison table of some of the theories in Figure 4-5). Instead, I took a rather idiosyncratic approach, and discussed some aspects of management motivation in the general management literature which appeared to me to be most relevant to project management, albeit in varying ways.

Overall, management motivating materials from general management appear to be equally relevant to project management. The ways in which they are applied will depend on various factors, including whether we are considering projects in production-based organizations, or project-based ones.

OVERALL SUMMARY OF THIS ARTICLE ON LEADING

As the above component summaries indicate, most of the general management materials on the three components of management leading appear to be equally relevant to the management of projects, albeit with some relatively minor modifications, as discussed in the main texts above.

MANAGEMENT LEADING
Decision making
Communicating
Motivating

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