THE ROLE OF MIDDLE MANAGEMENT IN THE KNOWLEDGE-FOCUSED SERVICE ORGANIZATION

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Abstract

This paper proposes a new role for middle management. Technology and the growth of specialization are altering the main role of the middle manager from supervision to the support of knowledge transfer. Middle managers must identify knowledge gaps and communication problems between groups, and bridge them. This bridging activity creates a network organization, linked by the knowledge transfer between groups. This bridging role is particularly important in service organizations because the particular properties of services make knowledge transfer difficult. The cohesion and effectiveness of the service organization in the future will come from the circulation of knowledge. An example is given of how middle managers can facilitate knowledge transfer in a service organization.

Introduction

The Survival of Middle Management

When electronic communications became common in organizations, many observers predicted that the role of the middle manager would decline rapidly. Naisbitt and Aburdene (1985) claimed that:

> *Middle managers — the people who collect, process and pass information up and down the hierarchy — are losing out to smart technology in the race for productivity. . . . What really enables us to shrink middle management is the computer, which gives top executives immediate access to the information previously obtained from middle managers. . . . Now with the computer to keep track of information and people, middle managers are seen as disposable.*
> (pp. 12-13)

However, middle managers have not disappeared. The changes in technology, social structures, employee skills, customer preferences and the size of markets have altered the task of the middle manager; but they have not replaced it. Middle manag-

ers have always done more than merely transmit information: they have co-ordinated and directed staff, trained them and motivated them. However, changes in technology and workplace relations mean that the way middle managers operate is now very different. The middle manager is no longer the department expert, for activities are too complex and change too quickly. The middle manager is no longer the main source of data, for information technology has given staff direct access to data. The middle manager is no longer the unquestioned authority who directs work, because staff no longer need this, or accept it. The role of the middle manager has changed from an authoritarian one of getting tasks done, to a role of ensuring that the knowledge necessary for effective operation is possessed by the staff — the knowledge of what they must do, how they should do it, and why it should be done.

The New Function of Middle Management

In this contemporary world of reduced management authority, greater task complexity, and intense competition, the key to survival and success is better knowledge; knowledge of customers, of processes, of competitors, of technology, of suppliers. There is a need to acquire and transfer knowledge across and through the organization; and the middle manager is a key player in this according to Marshall, Prusak, and Shpilberg (1997).

> *Many firms are finding — post-downsizing, post-reengineering — that middle managers who had seemed to be simply pushing paper, are in fact playing a valuable role in the transfer, access and generation of knowledge.* (p. 226)

Knowledge is generally used and applied by the operational staff. The people who can facilitate the acquisition and transfer of this knowledge need to have a detailed understanding of the operational tasks, and have direct relationships with a wide range of operational staff. This implies that they should be middle managers.

This paper discusses how this knowledge transfer role may be carried out by middle management.

The Management of Knowledge

The development of a taxonomy of knowledge management processes and the linked description of operational steps is still in its infancy. Various approaches have been proposed. For example, Coombs and Hull (1997) have emphasized "knowledge management practices". Jordan and Jones (1997) have developed a framework for assessing the knowledge management framework in an organization, in terms of knowledge acquisition, problem solving, dissemination, ownership, and storage. These ideas have been developed further by Johnston and Blumentritt (1998).

As a first step in the management of knowledge, a Knowledge Gap Assessment is necessary. It has to be established what knowledge is needed to perform a certain task and if this knowledge is available for use. If a gap has been found, the next step is to

determine how it can be closed. This can be done in two ways: external knowledge acquisition or internal knowledge creation.

The following list summarizes the main steps in the management of knowledge.

• **Knowledge identification**: the processes of locating and recognizing knowledge, which is relevant to the organization.

• **Knowledge acquisition**: the process of obtaining knowledge previously not available to the organization, so that it can be used by the organization.

• **Knowledge creation**: the processes of creating new knowledge within an organization through traditional research and developments or the linking of previously separate information. Much of this occurs on individual or team level.

• **Knowledge validation**: the process of determining the accuracy, the value, and the validity of the knowledge.

• **Knowledge capture**: the process by which the organization gains control over particular knowledge.

• **Knowledge transfer**: the process of transferring knowledge throughout an organization and to targets outside the organization. This process may take place in a relatively informal manner through conversations and discussions or through more explicit processes designed to insure that relevant staff and sections are informed about particular knowledge assets considered valuable for a particular objective.

• **Knowledge utilization**: the process of deliberately and intentionally using knowledge to pursue a specific objective.

This model can be used to initiate the knowledge management process; but the steps have to be performed continually as knowledge has dynamic properties and is changing constantly. The rate with which knowledge is changing and the nature of the organization determine the effort and the cycle-time of the knowledge management processes.

There are greater demands on the management of knowledge in service organizations than in manufacturing organizations, which are generally more stable. Because of the individual nature of most service encounters, it is difficult to control service organizations through standard procedures and specified criteria. Knowledge transfer is more important, and more difficult, in service organizations, and places more demands on middle managers. As a result, our research has focused on service organizations.

Knowledge and the Service Industry

Properties of Service Organizations

The problems of knowledge management in service organizations arise from the particular properties of service organizations identified by such researchers as Zeithaml, Parasuraman, and Berry (1985), Oakland (1993), and Bateson (1995). Knowledge management is made difficult by *intangibility* of the product, *inseparability* of pro-

duction process and consumption of the product, *heterogeneity* of the product, and *perishability* of the product. These properties mean that the creation of knowledge in service organizations usually occurs in individuals (inseparability of production and consumption); that the transfer of knowledge is more difficult (due to intangibility of the product) ; that each transaction involves new knowledge (heterogeneity); and that knowledge must be transferred urgently due to the perishability.

As an example, in a travel agency, the inseparability of production and consumption affects knowledge creation and transfer during consultation. The customer is receiving the service of being advised on his holidays and is actively participating in the process. S/He asks questions, has special plans and wants to combine different routes on the way to and from the holiday destination. During this process, the travel agent will encounter situations in which he has to find out the information himself and has to link these with already known characteristics of the travel business. In other words, the travel agent creates new knowledge from new and old information throughout the service delivery process. This new knowledge will help the individual travel agent to service the next customer with a similar agenda faster and more reliably. The knowledge of the individual travel agent is therefore growing with every service encounter. An area of knowledge has been created in this transaction; but it is not linked to the rest of the organization. It is, in a sense, a 'knowledge island'. The existence of 'knowledge islands' creates problems for the co-ordination of service organizations.

'Knowledge Islands'

The development of knowledge islands has two consequences. On one hand, the creation of new knowledge by the employee is a positive development. It helps to enlarge the experience base of the employee and with this the possible enrichment of the service. On the other hand, the organization as a whole encounters problems. The newly created knowledge belongs at this time only to the individual employee. When s/he leaves the knowledge is lost. Furthermore, unless the knowledge is diffused, the performance of the organization as a whole will vary from agent to agent. This diffusion must occur across all the different service agents to keep the barriers between the knowledge islands as small as possible and enable the organization as a whole to learn from the situation. This problem increases with the size of the operation.

The probability of a build up of knowledge islands within a service organization is high. Management needs to identify the location and size of the knowledge islands, and the barriers to the diffusion of the knowledge. This identification is an ideal task for middle management, who is close enough to recognize the individual islands in their area of business. Connection of these islands through middle management would foster a better understanding and overcome some of the problems associated with the special properties of services.

By establishing connections between areas of knowledge, the middle manager creates links to other parts of the organization. These links are lateral ones, between similar levels and across disciplines. As these links multiply, the organization changes

from one directed from the top to a network where 'mutual adjustment' between groups (Mintzberg, 1983) is the way operations are co-ordinated. There is strong support for the idea that networks are the way organizations will develop.

The Tasks of the Knowledge Manager

The Hierarchy of Coordination

With the growth of specialization and rapid changes occurring, modern managers — whether middle or senior — often lack the expertise to supervise or direct the work of their staff. The hierarchy of authority, in which orders and directives pass down from higher levels of the organization to the lower levels, has been largely superseded in the most competitive organizations. The hierarchy of authority has been replaced by an hierarchy of coordination (Ackoff, 1984; Mintzberg, 1993); and coordination is achieved by the transfer and creation of knowledge. Instead of a tree-structure with decisions flowing down the branches, an adaptive organization generally has a network structure.

> *Network structures are characterized by lateral or horizontal patterns of exchange, interdependent flows of resources, and reciprocal lines of communication* (Ibarra, 1992, p. 169).

The concept of the modern organization as a network is emphasized by Toffler (1985); Kanter (1983, 1988); and White (1993).

The contemporary middle manager must operate largely within these lateral exchanges between groups, rather than along vertical lines of communication. This accords with their new role as knowledge facilitators. Little of the knowledge, which their staff requires, comes from senior management. Much of it comes from other departments and groups within the organization; the remainder comes largely from groups or individuals outside the organization. The middle manager therefore becomes principally an intermediary between lateral groups, and not primarily a channel from senior management.

Facilitating Knowledge Transfer

The transfer or facilitation of knowledge is not simply a matter of providing data to the right person. It requires an understanding of the recipient's needs and ways of thinking; and a respect and trust by the recipient for the source of the information. These factors come only through prolonged personal interaction between the people involved. This kind of personal interaction occurs mainly between members of a group, and between group members and their direct manager. Sometimes it occurs between members of one group and those of another at the same level.

The middle manager is in a better position to facilitate knowledge transfer between operational groups than more senior personnel. The middle manager has day-to-day personal contact with operators, which develops the level of trust and understanding

required to be an effective facilitator. The role of senior management is to facilitate knowledge transfer between the people with whom they interact regularly — the other managers.

It has been claimed by some writers that network structures will provide their own coordination through the informal communication paths, which make up the network.

Naisbitt and Aburdene (1985) suggest:

> *We are reinventing the corporation from a top-down bureaucracy*
> *into a network where everyone learns from everyone else* (p. 78)

Advocates of the process view of organization claim that a focus on process will automatically generate cooperation between the participants (eg. Ostroff & Smith, 1992). Supporters of cross-functional teams claim that these teams will provide the communication and coordination required. In reality, the organization where everyone interacts with everyone else does not occur unless the organization is very small. Within larger organizations, the best way to get effective cooperation at the task level is to form coherent groups or teams. People work best in teams; and teams by their very nature are small and exclusive.

Teams and Communication

The small, dedicated group develops highly efficient communication, involving its own coding systems. Katz and Kahn (1996); Sapir (1969); Boisot (1987); and Davenport and Prusak (1998) have observed that effective knowledge transfer is far easier when participants speak the same or similar language (i.e. share the same terminology).

Thus, engineers in a team develop sets of acronyms, terms with special connotations, and shared inferences, which would make their discussions incomprehensible to eavesdropping accountants. Internal communication becomes extremely efficient, but the ability to communicate with outside groups is often diminished.

For tasks to be performed efficiently and effectively, teams are required. However, this efficiency comes at a cost. The more cohesive a team, the less it is likely to share knowledge with those outside the team (Schein, 1969). There is therefore a trade-off between coordination at the micro level — through strong teams — and coordination at the macro level — through wide-ranging communication. It is to overcome this conflict that the middle manager must provide a 'knowledge bridge' between groups. The middle manager becomes a manager of knowledge, helping to direct learning within the organization.

The Knowledge Facilitator

In this learning environment, the middle manager can no longer be a guardian of traditional knowledge, which he or she provides to the workers with directions how it

is to be used. The middle manager has become a key link in the learning process within organizations, a channel through which knowledge is transferred, and a catalyst for the creation of knowledge. Nonaka and Takeuchi (1995) claim that

> *knowledge is created by middle managers . . . at the intersection of the vertical and horizontal flows of information within the company.* (p. 125)

The new role of the middle manager is that of the **knowledge facilitator** or coordinator of learning for organizational groups.

Many recent writers have advocated the role of the manager as coach. However, the role of a knowledge facilitator is different from that of a coach. A coach is still the source of expertise; the coach is the possessor of the skills that the team requires. A coach has authority from his or her knowledge. The modern organization is generally too complex nowadays for a single individual to *coach* a department. The middle manager brings people together to share knowledge, or provides the communication link to bring information to those who need it, in the form in which they can comprehend it.

This task of coordinating knowledge is a difficult one, even when there are standard processes and teams working closely together. The problems are multiplied in the service environment, where each transaction is likely to be different, and occurs between individuals. However, these very features of the service organization make the management of knowledge a greater priority than in manufacturing organizations.

The 'Informal-Network' Administrator

If the key task of a manager is to ensure that knowledge is transferred between groups, the problem is to determine how they will do this. There are many problems in the transfer of knowledge between groups; it is a very different matter from the mere transmission of data between locations.

Knowledge is what people know; it is the structures and relationships within their minds. For people to acquire new knowledge, they must first have a motive for acquiring it; then they must be exposed to the information and/or analysis which can generate the new knowledge; they must be able to decode, interpret and process this information; and finally, they must possess an existing mental structure which can accept the new knowledge.

The stages, which are necessary for knowledge acquisition, are:

* recognition of the need for the knowledge
* access to the sources from which the knowledge can be acquired
* decoding and interpretation of the information from these sources
* relating the new information to the existing mental structures

There are generally major communication difficulties between the source of knowledge and the recipient. Whenever an organization has been divided into groups or teams, these create cohesiveness and a culture of their own, which inhibits coopera-

tion and communication with outsiders. Sackman (1992) has shown how subcultures in an organization emerge around shared terminology and meanings rather than around practices, prescriptions or theories. These different groups have difficulty understanding and interpreting each other's ideas and information.

> *Within an organization there are problems of clear communica-*
> *tion across subsystems. The messages emanating in one part of the*
> *organization need translation if they are to be fully effective in*
> *other parts* (Katz & Kahn, 1996, p. 227).

There is also a problem of lack of trust between the source and the recipient. Trust is a strong element in working together and sharing knowledge (Burt, 1992). When trust does not exist, there are problems on both sides of the communication; the source is reluctant to share its knowledge; the recipient is reluctant to rely on the information provided.

> *Each group begins to see other groups as the enemy . . . each*
> *group is likely to listen more closely to their own representative*
> *and not to listen to the representative of the other group, except to*
> *find fault with his presentation* (Schein, 1992, pp. 72-73).

The Knowledge Agent

These conditions place requirements on the function of the middle manager as knowledge agent. First, the middle manager must work to earn the trust of both the groups which s/he is coordinating. Secondly, the middle manager must be familiar with the technology, coding, interpretation and mental maps of the two groups of staff involved. Thirdly, the middle manager must understand the operations of each group sufficiently to identify the knowledge needs of each group, and what knowledge exists in the other group which might be used to fill the gap.

It is unlikely that a single manager will be able to master the expertise, gain the trust, and understand the coding systems of several different disciplines or groups. However, an intelligent manager should be able to achieve this for two separate groups. This leads to the concept of 'bi-skilling', where a manager acts as the knowledge transfer agent between two particular groups within an organization. Each pair of groups in the organization needs such an agent if they are to be supplied effectively with the knowledge which they require, from the source which possesses it, in a form which they can comprehend, from a source which they trust. Nahapiet and Goshal (1998) state:

> *The term 'social capital' [highlights] the central importance . . . of*
> *the networks of strong crosscutting personal relationships devel-*
> *oped over time that provide the basis of trust, cooperation and*
> *collective action . . . .* (p. 243)

This idea of a set of bi-skilled knowledge transfer agents linking each pair of groups gives rise to the network-linked organization. The function of the chief executive becomes one of facilitating the knowledge transfer relating to organizational strategy,

by linking customers (and, to an extent, competitors) to the strategy group. This strategic knowledge needs to be transferred to each department and to each group, in a way that the recipient group can understand and apply it. This understanding of organizational strategy serves to direct the efforts and goals of each group within the organization, and replaces the directives which an authoritarian hierarchy uses to coordinate groups. This knowledge of strategy is transferred through a knowledge agent — a middle manager — who understands the organizational strategy, and can relate it to the language and needs of the group which s/he relates to. In order to do this, the manager must be familiar with the knowledge and the competitive pressures which led to the strategy; and be able to guide a specific group into a set of goals which are within their capability and meet the strategic needs.

The middle manager also provides knowledge in the reverse direction, from the operational groups to the strategic planners. This knowledge would include the capabilities of the group concerned, how they can contribute to the strategy, and any obstacles which may require the strategy to be modified.

The Communication Enhancer

The transfer of knowledge between groups with different cultures usually needs extended personal contact between members of the groups. This can be achieved by setting up cross-functional teams, or by 'mentoring'. It is often useful for the middle manager, who can communicate well with both groups - to be involved in these contacts. In other circumstances, the knowledge agent can him/her self be the intermediary between the groups, obtaining the relevant knowledge from one group, and translating it and conveying it to the other group.

Conclusion

Putting the Concepts into Practice

Initial work is being carried out on how these ideas can be put into practice in service organizations. One organization which has been analyzed is a project management organization dealing with a variety of technologies. In this company, there are various teams who contract to manage projects. There is a degree of overlap between the project customers and technologies, so there is an interest in the transfer of knowledge between project teams. At present this is done by using a Project Director who manages a different team from the Project Manager. However, in many cases, the Project Director plays little part in the operation. This appears to be due to the lack of a suitable forum for the knowledge transfer.

It is proposed to make the Project Review this forum. At present the project reviews are essentially policing exercises, where outside experts try to find fault with the project design and implementation. If their focus can be changed to that of knowledge transfer, it is believed that this will benefit the organization. The

idea is that the project team will use the review to describe the innovative techniques and successful methodologies which they have used, which may be of interest to the reviewers. The project team will then define the various problem areas which they face, with the idea of gaining useful information from those in the review group, whose expertise and experience may be relevant. The Project Director is in a good position to be the Knowledge Agent who facilitates the transfer of this knowledge.

In order to use the Project Review as a knowledge transfer forum, the middle manager must have an understanding of the project involved and its technology; have a clear aim of transferring knowledge; have the ability to organize the review sessions to minimize fear and conflict; have the capacity to act as an information link when the project team and reviewers fail to communicate; and have the skill and tact to guide the discussions along lines which will lead to the exchange of beneficial information. The middle manager has therefore to be an engineer, psychologist, manager, leader and interpreter!

Summary

Large service organizations are facing enormous pressures in the modern, global environment. The difficulty of coordinating professional staff, the continuous evolution of technology, the erosion of profits by competition, are all forcing these organizations to adopt new structures, and assign new roles for its management. This paper proposes a new focus for the middle manager in such organizations - that of the knowledge facilitator. It suggests that this role will be to arrange the transfer of knowledge between elements of a complex network of groups. The coordination of operations and strategy will be through the transfer of knowledge.

As organizations recognize the importance of knowledge resources, this role of the middle manager as knowledge facilitator will be accepted as one of great value. As pressure grows on the acquisition and use of knowledge, new reporting lines and new knowledge links will have to be established so that the organizational knowledge is fully and effectively used. The middle managers, who are in the center of this web of communications, will need to have a clear idea of the strategic direction of the organization; for they guide and control the knowledge resources which are the key to the success of that strategy.

Unless knowledge is transferred efficiently, the effectiveness of the organization will suffer. This efficient transfer of knowledge between groups is a challenge for the new manager, and will require a range of new skills and functions. The middle manager must possess an understanding of the needs of their staff, an ability to generate trust and respect, communication skills of a high order, and an ability to influence people. They must also have a clear idea of the organization's aims, and what information and knowledge will contribute to those aims. To be effective in these conditions is a challenge that the contemporary middle manager must meet for service organizations to remain competitive.

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