

Title: Strategic and Policy Issues Investigation "Leadership and Technology Management"

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Abstract: The most critical challenge in technology management is to motivate creative people by bringing their personal goals and the organizational goals together. In this paper we will examine some of the sources of informal power which is essential for leadership. Then we will discuss some definitions of leadership, heroic or charismatic leadership and management leadership. Finally, we will explore the impact of post-heroic leadership on some technical and manufacturing organizations.

Leadership and Technology Management

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Abstract:

A most critical challenge in technology management is to motivate creative people by bringing their personal goals and the organizational goals together.[5] In this paper we will examine some of the sources of informal power which is essential for leadership. Then we will discuss some definitions of leadership, heroic or charismatic leadership and management leadership. Finally we will explore the impact of post-heroic leadership on some technical and manufacturing organizations.

Power

The most effective power of a leader is gained informally, not granted by a higher authority. Management status or formal authority is given by the higher echelons but leadership is given by the followers.[2] Personal characteristics and associations with other individuals and power groups provide tools for the leader to accomplish his aims.[5][8]

..Competence or expertise is probably the most important component of an informal power base. Excellent performance of the requirements of ones' position is only the first step in this area. Understanding of the goals and operation of ones' organization allows the individual to identify possible problems and suggest solutions or alternative actions. Being well-versed in professional and trade literature provides a base of understanding and helps build a reputation as a competent individual [8]

Close associations, both professional and personal, with those in higher positions provide visibility and access to those who can make a difference. Personal power can be held by an individual out of proportion to their formal power. Work-place anecdotes are replete

with examples of this. The bosses' administrative assistant may not have significant power of position but he or she has the bosses ear and is not to be taken lightly. Mentors with more organizational and positional power can sponsor and advise younger less experienced individuals. Alliances with peers and former managers can provide opportunities that would otherwise be missed. Coalitions with others in the immediate organization or in the same industry and professional associations build the informal power base. [5][8]

Personal characteristics including appearance, professional behavior and interest in the job contribute to informal power. A professional is selling himself and a good salesman puts his best foot forward.

Resources such as people and equipment provide a personal power base. The manager who can form a problem-solving team within his organization to examine problems in the larger organization increases the power of himself and his organization [8]

An effective leader requires a base of personal power that often precedes the attainment of recognized formal power. Competent individuals who have amassed personal power and use it wisely are more likely to receive formal authority than those who do not.

Leadership

Depending on the leader, the situation in which he leads or the perspective of the observer a number of descriptions of leadership arise. We will focus on those that describe a leader who is having an impact on the groups goals and performance.

A leader is a person who is able to lead the group towards its' goals. Such a definition requires identification of the groups' goals and excludes leaders who lead the group toward his own goals or towards goals that differ from the intent of the group. Negative leaders are not included in this definition.

Leaders such as Hitler or Stalin turn the goals of the group toward their own personal agendas but they are still leaders because they influence or even control the behavior of many. A person who has influence on the groups' mentality and changes it is also a leader even if that change is negative. This definition allows for more than one leader in a group as each individual can influence the groups behavior to some extent. The group leader may be recognized as the person who exerts the greatest influence on the groups behavior, performance and goals.[9]

Charismatic Leadership

The charismatic or heroic leader leads by the force of his personality and its effect on the followers. Many historical figures, most of them political or military, fit this mold. Julius Caesar, Alexander the Great, Napoleon Boneparte and George Washington all had commanding presences and great success. Winston Churchill inspired his country to supreme efforts in its defense. The turnaround of Chrysler corporation by Lee Iacocca, often thought of as a charismatic leader, is a result of contemporary heroic leadership [6]

Figure 1 illustrates many of the characteristics of the charismatic leader, his followers and the context of their relationship.[1] The structural components of the leader, followers and context all give rise to dynamic components or relationships between the three structural components. The characteristics listed for the leader and followers are somewhat idealized and stereotypical but they illustrate the operation of charismatic leadership in many situations. The leader has most importantly the vision, confidence, and commitment to accepted by the followers. His need for power motivates him to seek acceptance as the leader. The followers form an emotional attachment to the leader and offer him obedience and dependance. The situation or context brings about the situation via either crisis or opportunity. [1]

The dynamic components illustrate the effects of the various structural components on each other. The leader responds to the context by identifying opportunities and refusing to accept the status quo. The context or situation causes the followers to feel helplessness and distress. The followers identify with the leader and internalize his vision:

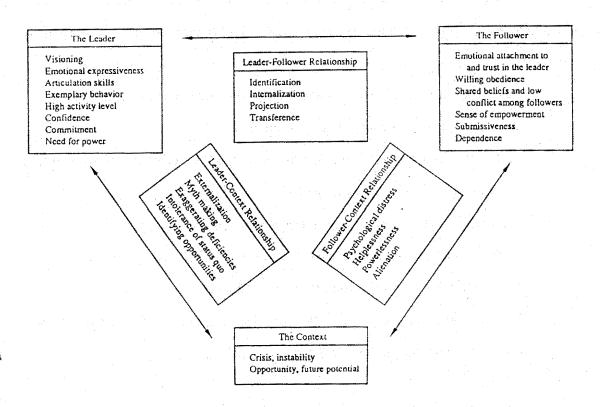


Figure 1

Management Leadership

Leadership is more an art than management itself. Management techniques can be taught but there is no pattern of training and experience that will guarantee success as a leader. Many successful leaders have followed different paths to their positions. One manager may be conceptually oriented, another person oriented and a third task-

achievement oriented. What is important is that the manager-leader identify what works best for him and his organization in working through and with his people to attain the groups goals. [2] The classical definition of management portrays it as an administrative activity hence failing to capture the essential management skill, leadership, needed for rapidly changing technologies.[4]

The manager-leader's task is far more than developing a charisma that motivates his followers into working to fulfill his vision. Some of the more significant demands of the role are:

- 1. To develop a work team characterized by mutual acceptance and respect which produces greater coordination and cooperation.
- 2. To relate to the individual and draw from him the factors that move him from acceptable to excellent performance
- 3. To motivate the work group to improve on past performance
- 4. To provide for the stability and maintenance of the work group.
- 5. To represent the work group to higher echelons
- 6. To enable the work group to meet expectations and earn recognition, thus providing individual and group satisfaction [2]

Post-Heroic Leadership

Post-heroic or "Super leaders" may have many of the characteristics of the charismatic leader but they are distinguished from them primarily by how they lead. The post-heroic leader is one who can get others to lead themselves. This appears to be a new idea to our society but a Chinese proverb says " Of the best leader, when he is gone, they will say: We did it ourselves".[3] The challenge of world competition has pressured companies to use their human resources to the fullest and every employee comes equipped with a brain. Modern management techniques such as quality circles, self-managed work teams, and

flatter organization structures have caused the dilemma of trying to provide strong leadership for workers while encouraging and allowing them to become self-managed.

The post heroic leader is first a self-leader. He uses behavior and cognitive strategies to organize and motivate his own work. It is essential for a leader of others to first be a self-leader so he can teach self-leading to others. Behavior focused strategies include observation, goal-setting, self-reward and self-criticism.[6] All these behaviors are focused on oneself in the self-leader. Self-observation is the first step in any management or improvement program. As in driving a car one must know where one is in order to get to where one is going. Objective observation of the quality and quantity of work output is required to compare with the goals set by the individual for himself so that evaluation of progress can be made. An individual who has been successful and excelled in pursuit of a degree in the scientific disciplines has experience in self-goal setting and self-observation.

Suppose the student feels he has sufficiently mastered the material for a test beforehand and finds afterwards that his performance was not satisfactory. He must then accept a lower standard of performance or reevaluate his criteria for determining his level of preparation and understanding. Enough iterations of this feedback process can lead to a person who knows without being tested whether or not he has achieved understanding of the material being studied. Then self-observation has been achieved.

Cognitive-focused strategies for the self-lead individual include designing tasks that are self-rewarding and establishing the habit of thinking of problems or obstacles as opportunities. Tasks that are self rewarding allow us to experience a sense of competence, self-control and purpose. Collecting objects or hobbies that require time, patience and skill provide individuals with these feelings. These pastimes are pursued

because they are self-rewarding. Finding ways to make work self-rewarding enhances the work experience and facilitates self-motivation and self-discipline.

PostHeroic Leadership in Manufacturing and Technology

When companies derive their competitive advantage from knowledge workers, leaders must learn to change the nature of power and how it is used. Post-heroic leaders don't expect to solve all the problems themselves. Leadership involves getting things started and facilitating change. Post-heroic leaders are confident enough in their vision to delegate authority and responsibility both for the process and strategic planning.

An example of a successful company that takes these ideas to their logical end is the W.L.Gore and Associates company. The company is run based on the integration principle of "Theory Y". It states that members of an organization can best achieve their own goals by directing their efforts towards the success of the groups enterprise.[7]

Gore employees are not supervised they are sponsored. They are hired for a general work area not a specific function. Their sponsor integrates them into a work team and champions their development and early contributions. The basic principles the company operates under are:

Freedom

Fairness

Commitment

Waterline

Freedom is expressed in the organization in the choice of work and projects. Projects are initiated by anyone who has an idea that can gather a team and resources. Some projects are small and some involve an entire plant.

Fairness drives the compensation process. Each individual is evaluated by his peers, sponsors, leaders and teammates, and ranked in comparison to others of associates who

have similar levels of contribution. Then external comparisons are invoked for the company to be competitive for the best people.

Commitment is evident in the self-motivation, self-guidance, self-actuation expected of each associate. Associates are encouraged to make and keep commitments, champion new ideas and understand their team objectives. [11]

Waterline substitutes for budget. Individuals cannot make decisions that are below the waterline and hence could sink the ship. Such decisions are made in consultation and agreement with more associates [3]

This management philosophy makes each W.L.Gore plant into a true group enterprise. Each associate owns his work and its success or failure. Not all enterprises could or should be organized in this fashion even according to Bill Gore who preached that it would be impossible to convert an existing business to his kind of system.

Conclusions and Discussion

The integration principle of "theory Y" and the ownership that they cause the associates at WLGore to take of their work redefine technical management. If each worker truly owns and cares about his work, discipline and motivation by management is unnecessary. Fiscal responsibility is achieved by ownership of the enterprise by every associate. While every enterprise could not be organized along these lines actions by management that encourage worker participation in the decision process will increase their motivation and the value they place in their work.

Resources

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