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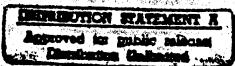


EMPOWERMENT AS AN ORGANIZATIONAL TOOL FOR INCREASING COMPETITIVENESS: A CASE STUDY

THESIS

CARL D. SWEET

AFIT/GCM/LAS/96S-6



AND COMPANY OF THE PARTY OF THE

DEPARTMENT OF THE AIR FORCE

AIR UNIVERSITY AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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EMPOWERMENT AS AN ORGANIZATIONAL TOOL FOR INCREASING COMPETITIVENESS:

A CASE STUDY

THESIS

Presented to the Faculty of the School of Logistics and Acquisition Management

of the Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the

Requirements for the Degree of

Master of Science in Contract Management

Carl D. Sweet, B.S.

September 1996

Approved for public release; distribution unlimited.

Acknowledgements

The primary purpose of this research effort is to provide Air Force managers additional information and insight on the subject of employee empowerment by adding to the store of knowledge available on the subject. This was done in the hope that the Air Force will continue to explore and experiment with employee empowerment as a means of increasing overall productivity and advancement of Total Quality Management principles. It should be noted that employee empowerment is only one of many initiatives that will be required to meet the challenges of the future, where Air Force managers will be constantly pressured to achieve greater output of products and services with a smaller input of resources.

I would like to thank several individuals who have helped in the completion of this research. My thesis advisor, Lieutenant Colonel Scott Graham, and my reader, Lieutenant Colonel David Murphy, provided me with timely guidance to help improve my report, and they also provided me the freedom necessary to feel a sense of ownership of the final product. I am also very grateful to Bosma Machine And Tool Company, and particularly to Mr. Lee Bosma, for their

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Carl Sweet

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Abstract

This thesis explores the use of employee empowerment as a means of improving organizational competitiveness in the marketplace. The methodology used is a case study of a small, private-sector company that used this strategy to improve its productivity, product quality and profitability. The results of this research were then examined to determine whether the successful practices identified in this organization can be applied to Air Force attempts to adopt employee empowerment.

The paper summarizes the organizational characteristics generally present where employee empowerment has been successfully implemented, as reported in recent management literature, including the following: company culture conducive to empowerment, effective employee training, ongoing management-employee communications, flattened organizational structures and salary and reward systems that compensate empowering behavior. It documents how the research was structured to identify the crucial organizational attributes necessary for empowerment, and to

assess the benefits to be derived by an organization that is currently transitioning to an empowered work force.

The results of this research were then used to offer recommendations for the implementation of the Air Force's own empowerment initiatives.

EMPOWERMENT AS AN ORGANIZATIONAL TOOL FOR INCREASING COMPETITIVENESS: A CASE STUDY

I. Introduction

General Issue

The unprecedented expansion of the global economy has created many new opportunities for American businesses. with these opportunities have come many challenges, uncertainties and competitive pressures. Small, less developed countries that had never presented a serious challenge to America's business acumen and industrial might are now able to compete effectively for market share in a wide range of industries based upon the availability of a large labor supply willing to work for wages that are extremely low by American standards. Lack of labor unions or governmental restraints on poor working conditions, employment of minors, or environmental pollution also reduce the costs of doing business for foreign-based industries not hampered by U. S. regulations covering workplace safety or other social concerns. Advances in technology that have brought increased automation and information technology into the workplace have

increasingly blurred the distinction between skilled and unskilled labor. These changes have helped to create a situation where entire industries can be shifted across geographic boundaries to avail themselves of a favorable operating environment, or other competitive advantages, wherever the physical location.

The economic and social impact of job migration from the United States to other countries, and the competitive pressure on businesses to cut wages or reduce their work force can have devastating consequences for individuals and families. impacts can, in turn, lead to popular pressures on the government to protect America's workers and businesses by placing restrictions or tariffs on imported goods. On the other hand, the expansion of the global economy presents opportunities for increasing the market for American products and services throughout the world and fosters the evolution of entirely new industries. The implementation of protectionistic restrictions on imported goods and services would undoubtedly be met by similar action on the part of other governments, and could ultimately cripple American business and labor more severely than unfettered competition. The warm reception of the protectionistic trade policies

advanced by the 1996 Republican presidential candidate Patrick Buchanan, underscores the popularity of protectionism in a time of labor uncertainty.

Government is not Immune

Government agencies and military departments are not immune to the pressures to achieve cost reduction. emergence of the United States as the world's sole major military power after the collapse of the Soviet Union has brought pressure from Congress and from the American public to reduce the level of military spending. Increasingly, business and congressional leaders are calling for privatization of functions once thought to be inherently governmental, arguing that the private sector can perform these functions more efficiently and more economically than the government. Reduced growth in budget authority is driving the military departments to reevaluate spending priorities, forcing difficult decisions among spending on new weapon system development, expansion of existing weapon systems, or support of administrative functions, and increasing pressure to reduce civilian and military work force levels. In many respects, the military departments are facing the same type of cost pressures as America's businesses. They are being forced to

consider the same types of responses to those pressures, such as reducing the labor content of their products and services, eliminating non "core" functions, and "subcontracting" functions perceived to be available from more cost efficient suppliers.

Is Productivity the Answer?

How should our business and military leaders respond to these competitive pressures which threaten the very existence of our industrial and military institutions? How can we harness the opportunities the changing environment offers nimble providers? Increasing the overall productivity of the work force is one possible solution. By increasing productivity, the effective cost of the labor content of our goods and services is reduced, allowing the market price of our product to decrease. In the case of government services, a reduction in the cost of labor will allow more services to be provided for a comparable or lower expenditure of funds.

A Japanese Example

In their zeal to reduce costs, American business managers, and their government counterparts are actively searching for successful techniques to increase labor

productivity. This search has led to increased automation and the use of computer technology on the shop floor, as well as in the office environment. Other recent advances involve changes to manufacturing and office processes to reduce the number of operations or functions required to produce a product or service. Still other techniques focus on changes in management philosophy or organizational structure to increase employee motivation and employee involvement in improving output. One widely reported productivity-enhancing technique is to increase the autonomy of employees to perform their jobs, allowing them to make individual decisions about job performance, or to alter the way their duties are performed, with the intent of increasing overall output and quality. Many business analysts credit the use of this technique, known as employee empowerment, as a significant factor in the transformation of Japan's economy following World War II.

Some American companies have followed the Japanese example, implementing employee empowerment as part of the quality transformation many hope will enhance their competitiveness in the changing world economic environment.

The most common empowerment strategy is to replace traditional

hierarchical work arrangements with autonomous work teams; however, other strategies, such as employee ownership, have also been reported to be successful. Such empowering strategies as the introduction of a simple suggestion program, or the presence of a supervisor that encourages employee autonomy can radically change the work environment and measurably improve productivity or work quality.

Empowerment in the Air Force

The Air Force has attempted to utilize these innovative management tools, forming work teams and reducing the levels of supervision on a number of weapon system programs.

However, there appears to be a great deal of uncertainty within the Air Force regarding what empowerment is or what it encompasses, much less how empowerment should be implemented, how its effectiveness is to be measured, or even if a large degree of employee empowerment is appropriate in such a highly structured and hierarchical organization as the U. S. Air Force.

This thesis topic was selected based on the need to develop a clearer understanding of employee empowerment and the potential benefits to be derived from implementing it, the need to develop a capability to recognize if empowerment is

present in an organization, and the methods required to encourage its development. It is imperative that the Air Force and the Department of Defense pursue any reasonable strategies to improve the productivity of its work force, in order to successfully meet the challenges of defending our nation against unknown foes, with increasingly constrained budgets.

Specific Problem

The Air Force must prepare for a future filled with challenges and uncertainties, as well as obvious and unseen opportunities. In order to best fulfill the Air Force mission, managers must be willing to maximize available resources. The largest available resource consists of the civilian and military work force. This resource must be fully utilized to assure the accomplishment of our critical mission. The empowerment of our employees may be used to accelerate progress toward our goals. However, there is uncertainty within the Air Force management ranks as to how empowerment can be accomplished. For example, the Aeronautical Systems Center, 1993 Quality Air Force self assessment report states the following:

"Organization member involvement focuses on each organization's efforts to promote involvement, empowerment and innovation...however, there does not appear to be a process in place to actually determine an organization member's involvement."

By studying similar organizations that have implemented empowerment programs, we may be able to discover methods to effectively implement empowerment within the Air Force and exploit the benefits to be derived therefrom.

The purpose of this research is to present a case study of one Tipp City, Ohio company that has successfully implemented an employee empowerment program. This study investigated a profit oriented, defense-related company, Bosma Machine And Tool Company (Bosma), to include identification of any reported benefits derived from empowerment. This case study will contribute to a body of knowledge to enhance the Air Force's understanding of empowerment and help facilitate the transition to an empowered work force.

Investigative Questions

To document Bosma's implementation of empowerment, the following areas will be addressed:

- 1. Explore company culture for evidence that empowered behavior is encouraged (e.g., stated policies or statements by management and/or workers).
- 2. Identify aspects of employee training that support the goal of employee empowerment.
- 3. Determine if formal organizational structure encourages empowerment.
- 4. Investigate managers' attitudes toward, and acceptance of, employee empowerment.
- 5. Investigate workers' attitudes toward, and acceptance of, empowerment.
- 6. Identify any signs that empowerment has provided tangible benefits for the company.

Scope

Qualitative research is required to investigate a problem or phenomenon which does not lend itself to empirical or objective evaluation (Creswell, 1994). A case study is a type of qualitative research which allows the researcher to review a single problem or entity in great detail and provide valuable insight for evaluation or problem solving (Cooper and Emory, 1995). This study is not intended to provide definitive data to be used to modify current or implement new

policies or procedures within the Air Force; it is intended to contribute to the Air Force's body of knowledge about employee empowerment. The private sector of our economy has reported numerous instances where empowered workers have made significant contributions to productivity and product quality. The same type of improvements may be available in the public sector if empowerment can be successfully implemented. By studying examples from the private sector we will be better able to understand the phenomenon of empowerment, and the cultural and business practice changes required for its implementation.

The study considered only one profit-oriented, defenserelated company, that has performed some contracted work for
the government. Bosma has achieved publicized success in its
transition from a traditionally structured organization to one
which is organized around empowered work teams. Due to
geographic location, the company is readily accessible and has
demonstrated a willingness to cooperate in the research
effort. Specific information about the conduct of the study
and the information to be collected will be presented in
chapter three.

Overview

This thesis begins with a review of literature on empowerment. The review identifies various definitions of empowerment, explores ideas on how it is to be accomplished, and provides suggestions on how to overcome impediments. The methodology of the research is presented in chapter three.

The methodology section describes the method of research, the development of the research instrument, data collection plan and the approach to data analysis. Chapter four presents an analysis of the data obtained from the interviews at Bosma. Chapter five presents the conclusions from the research, identifies limitations of the research, and offers recommendations for future research.

II. Literature Review

Introduction

Given the realities of today's rapidly changing business environment and the intense pressures associated with global competition, corporations today are interested in any strategy that promises increased productivity at reasonable cost. it is no surprise that many companies have embraced the concept of employee empowerment to achieve that elusive competitive "edge," with varying results. There have been a number of studies and innumerable articles that explore various aspects of how organizations can successfully implement empowerment. These include such things as employee participation in management decision making, implementing work-team based employment and utilization of specially designed compensation systems. This chapter will synthesize the more recent literature concerning the implementation of empowerment. Aspects to be reviewed will include key factors necessary to successfully adopt empowerment as a management strategy for increasing effectiveness and competitiveness in the business environment.

What is Empowerment?

In order to effectively discuss the implementation of empowerment, it is essential to begin with a clear understanding of what empowerment is, or what it means for employees to be empowered. Although some studies refer to empowerment or to "participation," while others stress teambased employment, each uses a common set of assumptions about the basic concept of empowered employees, or an empowering organization. Some representative definitions include the following:

- a. "Giving employees who are responsible for handson production or service activities the authority to
 make decisions or take action without prior
 approval". (3:620)
- b. "A process of enhancing feelings of selfefficacy among organizational members through the
 identification of conditions that foster
 powerlessness and through their removal by both
 formal organizational practices and informal
 techniques of providing efficacy information".

 (4:474)
- c. "Empowerment is recognizing and releasing into the organization the power that people already have in their wealth of useful knowledge and internal motivation". (5:20)

d. "Power means 'control, authority, dominion.'
The prefix em- means 'to put on to' or 'to cover
with.' Empowering, then, is passing on authority
and responsibility...empowerment occurs when power
goes to employees, who then experience a sense of
ownership and control over their jobs". (6:22)
e. "...empowerment means that the supervisory and
control responsibilities, which are commonly
reserved for senior managers in traditionally
organized firms, are entrusted to...workers that, on
a day-to-day basis transform inputs into output".
(7:19)

Empowerment, therefore, involves shifting actual and perceived authority and responsibility for job performance and decision making from its traditional location in management positions, to a lower level in the organization where the actual work is being accomplished.

How is Empowerment to be Accomplished?

Sharing Sensitive Information. There is general agreement on the specific behaviors management needs to embrace to ensure the successful implementation of empowerment in the workplace, although different authors stress different requirements. One key prerequisite frequently cited is to share sensitive information with employees. By "sensitive" the authors mean such topics as company market share, the

vision of the company, profitability, and growth prospects (8:50; 9:38; 5:21). Ways in which organizations should relay this information include regular meetings between top management and working level employees, news-letters, bulletin boards, and non-traditional communication exchanges such as informal supervisory-employee lunches or get-togethers (10:108). The benefits of communicating substantive corporate data are many, including leading employees to set challenging employment goals for themselves, and encouraging employees to build a commitment to the company (5:22; 11:30). These observations support the general concept that management communications foster positive team spirit, intense loyalty, and high motivation (3:345).

Company Culture. Another change to traditional management techniques frequently cited as a requirement for empowerment to thrive is a change in the prevailing corporate culture. Specifically, managers need to reduce rigid procedures and policies that stifle creativity and encourage "employee ownership" of their jobs (12:83; 13:47). One of the most important cultural changes needed is the way in which managers regard failure. Companies need to encourage risk-taking in order to entice employees to strive for greater

achievement (14:13). The only way that employees will be comfortable taking risks is if the penalties for failure are eliminated (12:82).

Most of the authors generally agree with Ivancevich, "that the greatest influence on how workers perceive work and how they behave is organizational structures. In order for empowerment to be successful, bureaucratic, hierarchical organizational structures need to be replaced with self-managed teams" (3:255; 11:32; 5:25). Ivancevich also states that "work teams can change demoralized workers into innovative partners," and that bureaucratic organizational structures are not conducive to employee decision-making" (3:297).

Is Teaming the Answer? One of the first obstacles to effective implementation of empowerment is obtaining employee acceptance of the concept. The studies cite several reasons for employee reluctance to embrace empowerment, including concerns about accountability and inexperience with team-based employment. Some employees do not want to accept the accountability for their work, which is a key ingredient of empowerment. Others need to believe their efforts will yield positive results, and that their work is meaningful (3:298).

An archetype study conducted by Bemowski indicated that employees' experiences with teams in the past have not always been positive, and that may preclude them from initially reacting favorably to teaming. In addition, the traits required to achieve team success are not always compatible with the American values of individuality and choice. study found that companies need to demonstrate how individuals will gain a personal benefit from team participation, and to provide each team member with a goal that, if achieved, will lead to a reward (15:42). Parker and Price cited research that empowerment is actually beneficial to employees, providing more intrinsically rewarding work, generating less stress, and promoting better physical and mental health (16:915). The data from these studies indicates that employees who exhibit reluctance towards empowerment initiatives may not be unwilling to accept responsibility for their own work, but are apprehensive about the teaming concept, based on previous experiences (15:41; 16:917).

Training and Rewards. The authors cite two tools that are available to managers to assist employees in overcoming their reluctance and/or inability to accept empowerment initiatives. The first is employee training. Specific types

of training deemed necessary include team-building, conflict resolution, decision-making, and organization-specific training employees need to expand their skills and perform more functions within the team (5:27; 8:50; 10:110; 14:13). In order to be effective, empowerment requires workers who have the knowledge and skill to perform their job effectively, or managers must provide employees with training in these essentials if they are lacking.

A second management tool to motivate employees to accept empowerment is a properly structured reward system.

Wallace stresses that actions are shaped by consequences, and therefore it is essential to link rewards to the employee behavior management wants to foster (14:13). The preferred compensation system, according to Cauldron, includes a team component, a company-wide bonus component, and an individual component. In order to encourage team identity and recognize team accomplishment it is necessary to base at least a portion of employee pay on team accomplishments. In order to minimize competition within the team, individual contributions should be skill-based (17:46). Ivancevich recognizes gain-sharing, a company-wide incentive plan, and skill-based compensation as valid options for corporations to foster teamwork (3:325).

More research is needed to determine the effectiveness of training and new compensation systems in achieving the desired level of employee acceptance of their new role in an empowered organization.

Gaining Supervisors' Acceptance. Although employee reluctance to accept empowerment can be a problem, the most frequently cited reason that empowerment failed to gain acceptance within a corporation is lack of middle management acceptance of the empowerment concept. Middle managers are often fearful about empowerment because, in an organization that embraces empowerment, they no longer make decisions or control the flow of information (12:82). Some studies suggest that managers may even work to undermine empowerment programs when they feel threatened by them (18:399). Yet, these same managers are a key component in an organization's ability to effectively empower their employees. Managers, through their considerable content knowledge and technical skills, are invaluable to those organizations that successfully make the transition to an empowered organizational structure (6:139).

The issue becomes one of defining what the proper role of managers should be in the empowered organization. Some authors suggest that managers need to progress from the

traditional managerial role of controlling employees to one of "coaching" employees to make good decisions (8:41; 13:48). Belasco and Stayer suggest that the current leadership paradigm is obsolete. If managers believe that their role is to solve problems, employees will continue to bring their problems to the managers, and will not develop their own problem- solving skills. They also believe that managers need to become coaches, who ask questions that encourage employees to take the appropriate action, rather than providing pat answers (11:30). One company, determined to change their first level manager's controlling behavior, increased individual managerial workloads to the point that managers were forced to share decision making responsibility with their employees as a survival technique (12:86). Effective, empowering managers are managers who are greatly concerned with both employees and production, but the problem becomes how to encourage managers to change their behavior (3:394). Some research indicates that "influence" or empowerment, is not a zero-sum game within an organization. Managers who exhibit more influence, or empowering behaviors, encourage their employees to act empowered. This, in turn, increases

the manager's effectiveness and reduces their reluctance to accept the necessary role changes (16:920).

Conclusion

In summary, empowerment offers a powerful tool for enhancing organizational effectiveness if management is willing to invest substantial effort in supporting the concept, by changing the corporate culture, establishing self-managed teams, sharing sensitive information with employees, encouraging effective employee performance through training, and providing well-constructed reward systems.

The recent literature does not fully explain what a manager in an empowered organization should be responsible for in the role as "employee coach," how managers should be evaluated or compensated, or whether the same number of managers is needed in the newly structured, empowered organization. More research is needed to determine how to persuade managers that empowerment is in their best interests. Possible areas to explore include beneficial training that can be offered to managers of newly-empowered employees and a fuller explanation of what the functions of manager-coach should be.

III. Methodology

Introduction

This chapter justifies the use of a case study as the research methodology, provides a description of the research population and sampling technique, and addresses the development of the research instrument. Data analysis procedures and limitations of the research design are also presented.

The subject for this research is Bosma Machine and Tool Company. Bosma is a small, local contractor that conducts commercial business, as well as completing projects for the Department of Defense and other government agencies. Bosma has been reported as having successfully implemented employee empowerment and self-directed work teams. The location of the company in the greater Dayton area provides convenient access for conducting the research.

Research Objective

The overall purpose of this research is to identify the key characteristics for successful implementation of employee empowerment programs and the benefits to be derived from these

programs. Important and useful information can be obtained by observing an organization that has successfully instituted employee empowerment. This research will examine such an organization, focusing on the following: the identification of what empowering management behaviors or characteristics have been adopted, what, if any, benefits the company has derived from the organizational changes, and the effect of these changes on employee attitudes and behavior. It is expected that if Air Force managers are provided with sufficient examples of successful employee empowerment programs, they will be more likely to experiment with the adoption of empowering management behaviors in their own organizations.

Case Study Research

The literature review presented in the previous chapter identifies several characteristics that a number of authors consider to be keys to success in an organization's adoption of empowerment. Due to the qualitative nature of the research topic, these factors are not well suited to empirical study. Research of quality management subjects, such as empowerment, is best conducted within the setting of the organization to be studied; however, in such studies events are outside the control of the researcher (1:145). For this reason, case

study research may provide an appropriate vehicle for investigation. Case study research is a form of qualitative research well suited to collecting data about management or organizational subjects (18:13). In case study research, the researcher investigates a single entity in-depth. researcher seeks to document information about a specific subject, in order to advance the level of knowledge about the subject, or to support or discount existing theories about the subject. The researcher is interested in observing and documenting, rather the rigidly controlling events to capture a specific population characteristic (2:116). Case studies are concerned with the identification of connections between theory and observation, rather than the identification of causation factors, it is therefore an appropriate methodology for the conduct of this research (1:94).

Research Design

This research effort is focused on increasing the body of knowledge available to the Air Force on the subject of employee empowerment. The subject of the research is a local small business contractor that has been involved in work for the Department of Defense, other government agencies, and commercial contractors. This company has been reported to

have successfully completed the transition from a traditional, hierarchical organization to one that utilizes empowered work teams. The Air Force may be assisted in its own efforts to adopt empowerment by investigating an organization that has successfully made this transition, and documenting the degree to which specific characteristics or management behaviors, identified as being critical to success in adopting empowerment, are present.

Since the intent of the research is to identify whether key characteristics frequently associated with empowerment were present in the subject company, the collection of data from multiple sources provides maximum insight into the true state of the situation. This "triangulation" of data from several sources should serve to eliminate bias inherent in any one data source (1:174). For this reason, the research design included the collection of data through structured interviews with both management and workers, as well as a review of information contained in the company's policy statements.

Population and Sampling Issues

Population and Sample. In this case study, there is no intention or justification for the generalization of characteristics from a sample to a population. Therefore,

non-probability sampling techniques were used (2:202). The results of the research are intended only to add to the store of knowledge about employee empowerment or empowering organizations available to the Air Force.

Selection Process. The identification of specific subjects for interviews was driven by convenience of Bosma management, and the researcher's desire to interfere as little as possible with the primary work duties of the subjects. At the same time, it was essential to obtain a cross-section of subjects, in sufficient numbers, to corroborate any significant findings. As a result, the subjects consisted of 15 employees assigned to various departments within the company. Five of the subjects are management-level employees.

Research Instrument Development

Data Collection Method. The researcher chose structured interviews as the primary research instrument, in order to collect as much in-depth information, and maintain as much control over variation as possible. The interview questions were open-response type, in order to allow subjects to use their own words and express their own opinions as much as possible (2:312). Open-response questions permit the

researcher to obtain answers that were unanticipated, and may therefore describe more closely the actual views of the research subjects (19:87). Due to obvious differences in subjects' positions within the company, workers and managers were sometimes presented with different questions; however, in order to ensure consistency of responses, and comparability of data, the same basic questions, with minor changes, were utilized to the maximum extent possible.

Interviewee Identification. In order to facilitate the triangulation of data, interviews were conducted with a cross-section of employees, including top management, middle management, and work-team members. In order to incur minimum disruption of the company's operations, Bosma's management was given significant freedom to identify the individuals to be interviewed and to schedule the interview times.

Interview Question Development. The primary purpose of the interviews was to determine the degree to which certain key elements of empowerment were present or perceived to be present within the subject company. Therefore, questions were structured to determine if these key factors were present, and to elicit the interviewees' opinions on whether these factors

are important markers of employee empowerment, or critical to success in achieving performance goals.

Conducting The Interviews. The general nature of the interview questions was provided to the subjects in advance of the interviews. This was done in order to increase the amount of relevant information collected and to increase the reliability of the data. Two primary concerns regarding the conduct of interviews were to minimally disrupt the functioning of Bosma's business, and to elicit open and honest answers from the interviewees. In order to achieve these goals, the interviews were structured to take no more than an hour each, and the interviews were initiated with a non-attribution statement relating to individuals' specific responses.

Data Recording. The researcher used a tape recorder as well as written notes to gather the data. The tape recorder ensured that the full content of the responses was available for analysis. The interviewees were informed that the tape recorder was only to assist in data gathering, and that the tapes would be kept confidential by the researcher.

Pre-interview Procedures. In order to obtain the full cooperation of Bosma's management in the research, specific interview questions were provided in advance for their review and approval. In addition, Bosma executives were consulted about the general scope and content of the research questions prior to their formation.

Historical Data Review. Formal personnel and organizational policies of the company are a critical element in understanding empowerment and empowering management behaviors. Therefore, Bosma's corporate policy statements were reviewed to identify any evidence that supported the research objectives.

Summary

This chapter identified the case study as the methodology for conducting the research, and provides the justification for utilizing that methodology. The specific procedures utilized in the research were also identified. The results of the research and the analysis of the research data are presented in chapter IV.

IV. Findings

Introduction

This chapter presents the results of the research effort. General background information has been provided, including a profile of the research subjects and an outline of the data collection effort. A summary of the research results follows, grouped by specific management behaviors or functions that have been identified as potentially empowering. These include general empowerment issues, training, organizational restructuring for empowerment, workers' attitude toward empowerment, management acceptance of worker empowerment, and benefits derived from empowerment.

Background

The data for this research was collected through a series of structured interviews with workers and managers of Bosma Machine And Tool Company, an unstructured interview with the company's president and chief executive officer, direct observation of the work environment, and a review of posted or published company-wide documents. Since the company has

little in the way of published policy statements, the primary data source was the personal interviews. Direct observation of the work environment served to confirm the interview The interview subjects, excluding the company results. president, numbered 15, and represented a cross section of the various work teams included in the company. The individuals included ten non-managerial and five managerial employees. Of the five managerial employees, four have direct supervisory responsibilities, ranging from 1 to 20 subordinates each. fifth individual was a manager with responsibility for the technical aspects associated with a key function in the organization. The management employees (managers) have a total 2 to 23 years of experience with the company, with a mean of 11 years. The non-management employees (workers) included in the data collection effort have spent from 1.5 to 17 years with the subject company, with a mean of 7.7 years of service; their position duties involve several different functional areas, including machining, accounting, painting, shipping and receiving, welding, and fabrication. Demographically, one of the five managerial employees and two of the non-managerial employees are female, and one of the non-managerial employees is a minority. The age of the subjects ranged from

approximately mid-twenties to mid-fifties. The specific questions included in the structured interviews are included at Appendix A.

There are two sets of questions that were presented to the subjects, based on whether they were posed to the workers or the managers. In most instances, comparable questions were asked of both the workers and managers. Although the intent in such cases was to elicit the same information, the questions were structured differently to reflect the subjects' different roles within the company. Notable differences, or similarities in responses between managers and workers have been identified in the subsequent sections of this thesis.

Several questions were structured to elicit from the interviewees their general beliefs about empowerment and their experiences working in an empowered environment, in order to provide as complete an understanding of how empowerment operates in their work situation as possible. Although these questions were general in nature, the responses frequently concerned the key characteristics of empowerment, such as training, organizational structure, management acceptance, worker acceptance, rewards, and sharing sensitive management information. The responses to these questions served to

provide an overview of the empowerment environment at Bosma, and offered supplemental data used to amplify the responses to other questions.

Interview Data Presentation

The questions were grouped by topic, including general empowerment issues, training, organizational restructuring for empowerment, workers' attitudes toward empowerment, management acceptance of worker empowerment, and benefits derived from empowerment. The full range of answers and supplemental comments have been condensed to reflect the general consensus of the interviewees. In those instances where a particular response revealed a notable exception to a generally representative reply, it was identified separately. A synopsis of the interview responses is provided in Appendix B. The responses to several background questions have been deleted in order to preclude identification of the interview subjects.

General Empowerment Issues

Overview. One of the most important factors that impacts the effectiveness of empowerment in organizations is the degree to which a company's culture supports or hinders

employee empowerment. In order to determine the company culture that exists within Bosma, questions were developed to explore the company's formal policies and procedures, the degree to which the company communicates sensitive information with employees, the company's attitude toward risk taking, and the company's compensation and reward systems. The company's organizational structure, which also affects its culture, was addressed separately.

Formal Policies and Procedures. The company does not publish extensive, formal company-wide policy and procedure statements, although several respondents indicated that their department had developed written job instructions. The company does have a prominently displayed policy that prospective employees will be subjected to testing for illegal drug use. Another of the company-wide documents that did exist was a Total Quality Management-like pledge, signed by employees, that stated, in part: "This is my company, because here is where I spend 40 percent of my waking hours and what I do as an individual will contribute in some way to its success or failure. Through my efforts I can help make it a place with a future that provides security for my family and friends...." In response to question #15, workers reported

that there were no noticeable changes in company policy as a result of Bosma's move to empowerment. One manager and several workers expressed the desire for more formal policies on empowerment. Specifically, they expressed interest in a formal definition of empowerment, guidance from management concerning the extent to which workers were empowered, and the identification of the areas of the company's business where a worker was empowered to act independently.

asked to describe the extent to which important company information was shared with employees. In addition, managers were asked their opinion on how important it was for employees to have access to this type of information. This topic was addressed in management questions 24 and 25, and in question 18 of the workers' questionnaire. There was unanimous agreement that sensitive information was provided freely to employees, through newsletters, postings on bulletin boards, and company-wide meetings. The workers generally reported that they were impressed and pleased that management would share sensitive information with them, particularly in the area of company sales and profit levels. One worker indicated that there had been a significant increase in top management's

interaction with lower level workers since the move to empowerment was initiated. All of the managers interviewed reported that sensitive company information was shared with workers, that this was important information for workers to possess, and that it provided additional incentives for enhanced employee performance by allowing employees to see the effect of their contribution to the overall profitability of the company.

Risk Taking. The company's attitude toward risk taking was assessed in questions 23 (workers) and 30 (managers).

Workers and managers were asked if there were any negative consequences associated with an individual pursuing an independent action when that action was not ultimately successful in achieving the desired end. All of the managers, and all but one of the workers, indicated that there was no negative consequence to the worker under this circumstance.

The primary response was that any failures in this regard would be used as a learning experience. One manager noted that failures were more likely to be overlooked when the company was performing well overall.

Reward System. The subject of the company's reward system elicited widely disparate responses from the workers, and a noticeable variance in opinion was evidenced between the workers and managers. The subject was specifically addressed in questions 21 and 22 in the workers' questionnaire, and in questions 28 and 29 in the managers' questionnaire. addition, several interviewees addressed this subject in reply to the questions about empowerment, in general. All of the managers indicated that the company actively motivates workers to act independently by rewarding them for this behavior; they generally agreed that the rewards consisted of verbal recognition for the effort. Only five of the ten workers indicated that employees were specifically rewarded for acting independently. Overall, three of ten workers indicated that innovative, independent successes are widely publicized within the company through articles in the newsletter and/or notice on employee bulletin boards. One worker indicated that he had received a material reward that included a day off work with pay, and several out-of-town visits to his customers' business locations.

Although not covered by a specific question in the interviews, one aspect of the reward system that received a

significant number of comments from both managers and workers was the company's plant-wide gain-sharing plan. This plan, where ten percent of the company's profits are divided among the employees, was implemented within the past year. Managers and workers alike expressed the opinion that the gain-sharing plan is a significant motivation to workers, and that its implementation signaled that the company was serious about involving the workers more in the overall management of the company.

Training

Training issues were primarily addressed in survey questions 12 and 13 from the workers' questionnaire and questions 16 and 17 from the managers' questionnaire.

Additional comments on the subject of training were received in response to other questions. Most of the responses (10 of 15) to the identified questions indicated that some formal training had been conducted in the general area of Total Quality Management, but had not been provided in the specific area of employee empowerment or teaming. Five responses indicated that no training was provided, or that their training had been provided "on-the-job." Almost every respondent who indicated that they had received training

thought that it was of some benefit in understanding how they were expected to work in an empowered or team environment, how to recognize and avoid the early pitfalls associated with working in this new environment, or how it helped them to begin working in this environment.

The need for initial training, or additional training, was the single most consistent recommendation provided in response to all the interview questions. In response to question #31, three of the four supervisors indicated that more training would improve the way empowerment worked within the company. Several respondents indicated that they needed additional training that included a definition of empowerment or some indications from senior management on the extent to which individuals are empowered to act on their own initiative.

Restructuring for Empowerment

Questions 14 and 15 for workers, and questions 18, 19, and 22 for managers, attempted to identify what company organization or structural changes, or company policy and procedure changes, had been made to accommodate empowerment.

This is another area where there was significant disagreement among the interviewees. Three of five managers indicated that

some managers or management positions had been eliminated to accommodate a less hierarchical organizational structure. All but one worker responded that the organization did not change; the lone exception identified the company's new steering committee as the only modification. Only one respondent identified a specific policy or procedure change; this being a worker who indicated that he was now allowed to interact directly with customers.

The data collected for this research indicates that managers and workers are assigned to work teams, but that these teams, with one exception, are aligned functionally and retain the traditional subordinate-supervisor relationships.

The one exception is a cross-functional team assigned to manage a specific customer's account. Several comments by both managers and workers reflect that the cross-functional team is the only team viewed as a functioning work team. The others are more likely to be viewed simply as a department assignment.

Workers' Attitudes Toward Empowerment

Questions 6, 7, 10, 11, 24, 25, 27, and 28 were used to assess the workers' attitudes toward empowerment. With two notable exceptions, every worker indicated that they were

empowered to act independently or make decisions required to accomplish their jobs, and that they were more satisfied with their jobs as a result. The exceptions involved one worker who expressed the opinion that his supervisor was a "controlling type," and was not open to empowerment, and an office worker who felt that the structure of her job did not lend itself to worker-instigated changes. When asked if empowerment was important to the company's future success, all ten of the responses indicated that they believed that it was important. Eight of ten workers indicated that workers were more satisfied with their jobs since empowerment was introduced, but nine of ten indicated that management could take steps to make it even more effective. One worker indicated, in response to question #19, that he did not want the responsibility to make decisions, and that he thought that if too may people made decisions it would lead to confusion.

Management Acceptance of Worker Empowerment

Management acceptance of employees' empowered behavior
was assessed in questions and 11, 20, 21, 23, 26, and 27 of
the managers' questionnaire. In addition, workers' perception
of the managers' attitudes toward worker empowerment was
assessed in questions 8, 16, 17, 19, and 20 of the workers'

questionnaire. Generally, the results reflect that managers accepted or actively encouraged workers to act independently; however, overall, the managers' responses were more positive in this regard than the workers' responses to similar questions. Every supervisor indicated that they empowered their employees to act independently and that, as supervisors and managers, they were more satisfied with their jobs as a result. On question 11, the four supervisory managers all indicated that they viewed the company's initial move to empowerment positively and actively encouraged empowered behavior among their employees. When the workers were asked how managers had responded to the changes the company implemented in conjunction with empowerment (question # 8), only four of ten indicated that the changes had been actively embraced, and one of these excluded middle managers from his assessment. On a related question (#35), three of the four supervisors indicated that there was an inadequate level of worker empowerment within the company.

Benefits Derived From Empowerment

The company reports that Bosma has steadily improved profitability and reduced employee turnover since empowerment was implemented. Top management is quick to credit the move

to empower employees as the cause for the improvement. Questions 9 and 26 from the workers' questionnaire, and 13 and 33 from the managers' questionnaire were used to identify individuals' perceptions of benefits derived from empowerment. Four of the five managers indicated that they had received positive feedback from their customers since empowerment was introduced, and that the customers found it easier to deal with the company because they interacted directly with the workers. Five of the workers indicated that they had received feedback from their customers, and of these, three indicated that the feedback had improved since empowerment was introduced; two indicated that there was no change. All of the managers, and six of the workers, indicated that empowerment has improved the overall quality and quantity of work output. Some managers reported that workers were more accountable and cooperative since empowerment was implemented, and that workers were finding their jobs more enjoyable now. One worker reported a 50 percent increase in productivity in his department, over last year's output, and credited the improvement to the changes that occurred to implement empowerment.

Summary

This chapter presented the results of the research effort. The primary source of data was personal interviews, where the respondents described their attitudes and perspectives on general empowerment issues, training, sharing of sensitive information, rewards system, organizational restructuring, and management attitudes toward empowerment. The next chapter presents an analysis of the research data, and uses the results to draw conclusions about the factors important to successful implementation of empowerment.

V. Conclusions and Recommendations

Introduction

Based upon the results of the research effort, this chapter assesses the degree of success Bosma Machine And Tool Company (located in Tipp City, Ohio) has had in implementing empowerment, and offers recommendations for actions that the Air Force can undertake to empower its work force, based upon the Bosma findings. In addition, the chapter will address the limitations of the current research effort, and offer recommendations for future research.

Overview

Based upon the research results, Bosma has successfully implemented employee empowerment within their company.

Although not all of its employees believe that they are empowered, and the company has not eliminated all of the problems associated with the implementation of empowerment, the majority of Bosma's employees perceive that they are empowered to act independently in performing their position duties. All of the key characteristics of empowerment

previously identified in the literature review, including establishing a company culture conducive to empowerment, sharing sensitive company information with employees, instituting an effective reward system, and enhancing effective employee performance through training, are all present to some extent within the company. More importantly, the company is actively engaged in attempting to achieve an empowering environment for its employees through an evolutionary process of change and innovation which they have pursued for six years. The company's management perceives that significant benefits have been derived from their move to empower their workers, and this perception has motivated them to continue the evolutionary process that they began in an effort to enhance the company's fortunes.

The expressions of concern, by both managers and workers, that employees are not fully empowered, or that management should take steps to increase the effectiveness of empowerment, are healthy signs. In most cases they reflect that the employees seek empowerment and desire a more prominent role in the decisions that are made in the company. The expressions of employee interest in the company's operation, the excitement and interest employees display

towards the company's new gain-sharing plan, and the company's willingness to share sensitive sales and profit information with workers, are all reflections of a dynamic, evolving work environment, and management, from the president down, who reflect a strong commitment to empowering its employees.

Bosma's Company Culture

Bosma has developed a culture which encourages empowerment and empowered behavior among its employees. Rigid, company-wide policies and work procedures are noticeably absent, providing a supportive environment for individuals to attempt innovative and productive methods for accomplishing their duties. Management demonstrates its respect for employees by openly communicating sensitive information, and by offering a company-wide gain-sharing plan. These management behaviors ensure that the employees' attention is focused on increasing their productivity and enhancing Bosma's profitability. The data reflect that Bosma has been effective in eliminating the fear of reprisal for risk taking, which is a critical ingredient in encouraging employees to initiate independent action. However, for the company to take full advantage of the potential benefits of empowerment, management should address the perception on the

part of a minority of employees that there are no individual rewards and little formal recognition for employees who take the initiative to act independently.

Employee Training

Based upon Bosma's employees' comments, training is the weakest key empowerment factor addressed in this study. Overall, 10 of the 15 respondents indicated that they had received some form of training, and eight of the 10 acknowledged that the training was beneficial in helping them work in an empowered environment. Notwithstanding these responses, there was uniform agreement among the managers and workers that additional training was required. The company president expressed in the interview that the company has made a strong and continuing commitment to employee training, and that they have spent over \$35,000 on training in the first six months of 1996 alone. The company's commitment to training, however strong, may not be adequate to meet the current needs of its employees, particularly if it wants to have a major impact on employees' perceptions of the work environment in the near term.

The employees' responses in this area reflect that they are not yet completely comfortable with the environment in

which they are working, and that they are looking for additional quidance or direction in order to overcome their anxieties. Additional training is such areas as decisionmaking, working effectively in teams, and communications would benefit the employees by helping them become more confident, by allaying their anxieties concerning a new work environment, and by reinforcing what the company expects from them in this new structure. The company could contribute to their employees' sense of well being by providing them with guidelines or boundaries for the employees' exercise of empowered behavior. For example, they might set a dollar amount below which employees are free to obligate company funds for new tools, or supplies, without additional approvals. Bosma's management needs to strongly encourage the behaviors that they want employees to adopt or continue, either through formal training, or through some other form of guidance, such as a policy statement. However, it is very likely that the employees will not become completely comfortable with their new roles until they have gained significantly more time and experience working in an empowered environment.

Organizational Structure

Although Bosma has restructured their company by assigning workers to teams, and according to some managers, eliminating several management positions to flatten the organization, they continue to retain many of the vestiges of a traditional, hierarchical organization structure. Except for the employees assigned to the single cross-functional team, most employees appear to regard their team assignment more as a functional designation than as a self-directed work team. Some employees continue to complain about overly controlling supervisors and the lack of adequate teamwork.

In order to achieve its intention to have a fully empowered work force, Bosma will need to adopt a more empowering organization structure throughout the company. Self-directed, cross-functional work teams for all employees would provide the framework in which employees could become more aware of all aspects of their business, and accept "ownership" of the products the company manufactures. producing. The company must study its own self-directed, cross-functional work team to determine how this team has met the goals and objectives that were envisioned when it was

initiated, and to determine how this organizational structure can best be replicated throughout the entire company. If the work requirements for this team are significantly different from the work performed on other work projects, or if the company has identified weaknesses in the current crossfunctional team structure, appropriate modifications should be made before the new teams are organized. The company must retain its flexibility and a willingness to experiment with different arrangements until an effective cross-functional team structure is developed.

Workers' Acceptance of Empowerment

The data reflect that most of the workers embrace the concept of empowerment as a means of enhancing employee job performance and, in most cases, they perceive that they are empowered. In addition, the workers believe that the future success of the company will be greatly influenced by how successfully empowerment is adopted. They agree that they have been given a stake in the company's success through the company-wide gain-sharing program. Although the gain-sharing plan appears to have effectively focused the employees' attention on the company's performance, its implementation is too recent to ascertain the specific impact it has had, or

will have, on the company's profitability. The workers express continuing concern about such issues as the level of training they are receiving, inconsistent team structures within the company, and the slow pace of expanding empowerment; however, they appear to be genuinely concerned about the company's performance and confident in the importance of the empowerment process.

Management's Acceptance of Empowerment

The managers interviewed for this research unanimously agreed that they encouraged empowered behavior and independent action on the part of workers, and that this action had a positive influence upon their own job performance. In addition, three of the four supervisory managers expressed the desire for an increased level of employee empowerment within the company. Based upon the responses to other questions, by both managers and workers, it appears that the organization still employs several managers who have not fully embraced worker empowerment. This can serve to seriously dampen empowering behavior among the employees supervised by the reluctant managers. Another serious impediment to establishing an empowered organization is the presence of traditional subordinate-supervisor relationships in many of

the departments. This problem would likely disappear if the company eventually adopts self-directed work teams throughout the organization. In addition, managers may require training to move toward the role of coach and away from traditional directive supervisory behavior.

Benefits of Empowerment

The company has achieved a significant improvement in profitability and employee turnover since 1990, when it began the process of implementing employee empowerment. Although the company's management is quick to credit the move to empowerment as the cause of this improvement in the company's fortunes, the data collected for this research does not provide sufficient information to either accept or reject that contention. Never-the-less, the data does reflect that the workers and managers perceive that the quality and quantity of their output, and the level of customer satisfaction, have increased significantly since empowerment was introduced. addition, the workers appear to be very focused on improving their own job performance and concerned about the overall performance of the company. They report higher levels of job satisfaction since empowerment was initiated, which is in and

of itself a substantial benefit that has already been derived from the empowerment initiatives that the company has pursued.

Empowerment Within the Air Force

Adopting empowerment. The Air Force can utilize the experiences of companies such as Bosma, that have successfully initiated the journey to empowerment, to provide insights and inspiration for its own efforts to develop an empowered work force. For organizations like the Air Force, that must reinvent themselves in the face of austere funding, empowered workers offer the best hope for increased productivity with fewer resources.

The Air Force, more than most organizations, has a deeply entrenched bureaucratic culture, with extensive policies and detailed procedures that will be difficult to modify, particularly without the strong support of top management.

There are signs that the environment is changing, driven by reductions in funding levels, and mandated reductions in the Federal government infrastructure spurred by the National Performance Review. Under the Civil Service Reform Act, opportunities now exist for experiments in alternative personnel systems, such as the Air Force's "Proposed Laboratory Personnel Management Demonstration Project," which

is intended to help determine if changes in personnel policies will improve the government's personnel management system (20: 24622). Senior Air Force managers are mandating smaller, flatter organizations for the future, compensation systems with an increased emphasis on individual performance are being proposed, team awards are being developed, and organizations are experimenting with Integrated Product Teams. However, it will take a sustained effort over a period of many years to overcome the rigid hierarchical structure and bureaucratic mentality of such a well established and rank-conscious organization.

The primary training need within the Air Force, in order to effectively implement employee empowerment, will be to help managers overcome the long-established tradition of "top-down" management. Although some workers will require training to help them embrace the concepts of being empowered to act independently, this is not likely to be an extensive problem. For the most part, the Air Force has an extremely well educated and professional work force which will enthusiastically embrace empowerment when the culture is restructured to promote and reward empowered behavior among its employees.

Measuring Empowerment's Benefits. One of the biggest challenges that will confront the Air Force in its efforts to achieve empowerment will be the difficulty of measuring the extent of the benefits derived from the changes. At Bosma and other commercial organizations, managers can assess the overall benefits of adopting empowerment by measuring the changes in profit levels over time. Although these companies may not be able to assign a specific dollar value to a single change, or group of changes, to the companies' operations, they can certainly measure the impact to the "bottom line" to determine whether the company is performing better or worse than it did before the changes were adopted. For the Air Force, and other non-profit organizations, such an accessible, meaningful measure of success is not available. inability to quantify the results should not deter Air Force initiatives to adopt employee empowerment. If commercial firms with similar employees and similar business activities report improved performance, we should emulate their actions, assuming that comparable gains can be made within the Air Force. Resources should be allocated to explore other reliable measures of productivity that can be used at nonprofit organizations like the Air Force, particularly given

the recent advances in computer and information technology.

In addition, there are intangible benefits to be derived, such as increased employee satisfaction, which can translate to measurable gains over time.

Shortcomings of the Current Research Effort

There are numerous shortcomings associated with the current research and data collection efforts, but these shortcomings do not necessarily invalidate the findings. Foremost is the structure of the overall research effort itself. The qualitative, subjective nature of the study allows researcher and research subject bias to enter the data that is gathered. The research subjects were not selected randomly, but were identified by Bosma's president. He could have, either consciously or unconsciously, selected individual subjects which he expected to articulate a favorable impression of the work environment at Bosma. The inexperience and personal bias of the researcher were certainly present in the selection of the interview questions and the manner in which the questions were presented to the subjects, as well as in the interpretation of their answers. Another shortcoming of the method is that the research did not control for other causes of Bosma's improved fortunes over the last six years,

such as a generally improved economy, or improvements in the machine and tooling market in which Bosma competes.

Recommendations for Future Research

Several topics for additional research in the area of employee empowerment presented themselves during the research effort. One is to study the structural and motivational differences of profit seeking and non-profit organizations to determine what specific empowerment implementation methods are most effective in either case. Another proposed research topic is to study a business with a much larger number of employees than Bosma's, that is implementing empowerment, to determine how their experiences and implementation concerns differ from Bosma's. Finally, a researcher could study a nonhierarchical Air Force organization, such as an Integrated Product Team, to identify the aspects of employee empowerment which are or are not present and compare these findings to a commercial organization that is at a similar stage in the process of implementing employee empowerment.

Summary

This research evaluated the empowerment initiatives at one small, profit-oriented company, in the expectation that the results would add to the store of knowledge available to

the Air Force on the subject of employee empowerment. This topic was chosen to offer an additional initiative for the Air Force, like Bosma, to make a commitment to advance the level of empowerment among its employees, and to reap the benefits in productivity and worker satisfaction similar to those that were documented in this study by Bosma's managers and workers. It is only through a willingness to make the required changes to current practices, and to commit the resources necessary to train and educate managers and workers to perform effectively in a new environment, that the benefits can be derived. The traditional bureaucratic organizational structure of the Air Force may prove a difficult obstacle to overcome, but the potential benefits are worth the effort.

Appendix A: INTERVIEW OUESTIONS

MANAGERS

- 1. How long have you worked at Bosma?
- 2. To what organization or team do you belong?
- 3. What is your job?
- 4. How long have you worked in this job?
- 5. Do you have any prior experience working in an empowered environment?
- 6. How many employees do you supervise or manage?
- 7. What are their duties?
- 8. How much freedom do you give workers to act independently, make important decisions, or change how their job is performed without obtaining your prior approval?
- 9. What would an employee need to do if he or she wanted to change how the job was performed?
- 10. Do the workers act differently since they have been given this freedom? How? What problems did these changes bring?
- 11. How have you responded to these changes?
- 12. How did the workers respond to these changes?
- 13. Have you received any feedback from customers about their level of satisfaction with your product or service? Is it different since empowerment was introduced? How?
- 14. Has empowerment, brought any new problems with employee performance, discipline, or expectations?

- 15. Do you think the new approach is important to the company's success?
- 16. Did you receive any training to help you work in the new organization structure?
- 17. Do you think the training helped you? How?
- 18. Were the company's organizational structure or work processes changed to accommodate empowerment? How?
- 19. Did the company change their written policies or procedures after the new structure was implemented? If so, how?
- 20. Have you changed how you relate to your subordinates since empowerment was introduced? How? Most notable changes?
- 21. Have your employees changed how they relate to you?
- 22. Do you think your duties or role in the organization have changed since empowerment was introduced? How?
- 23. Do you actively encourage your workers to act independently?
- 24. Does the company inform all workers about important business information, such as profitability, sales goals, or other company goals?
- 25. Do you think this is important information for employees to have?
- 26. Do you ask for worker feedback on how to accomplish goals or perform work?
- 27. Were there any problems when you first tried to get feedback? How were they overcome?
- 28. Do you think Bosma motivates its employees to act independently?
- 29. Do you think this is an important employee trait?

- 30. If an employee acts in an empowered manner and the attempt is unsuccessful in achieving the desired end, is there any negative consequence?
- 31. Do you think management could take steps that would make empowerment more effective?
- 32. Do you think that workers are more satisfied since empowerment was implemented?
- 33. What have you seen to indicate that work quality, work quantity, or customer satisfaction have improved with empowerment?
- 34. Has empowerment met the expectations you had prior to its implementation? How?
- 35. Are you satisfied with the current level of worker empowerment, or would you like to change it? How would you change it?
- 36. What factors would you identify as being key to successfully implementing employee empowerment?
- 37. Is there anything else you want to add, or that you think might be important to understanding empowerment at Bosma?

NON-MANAGERS

- 1. How long have you worked at Bosma?
- 2. To what organization or team do you belong?
- 3. What is your job?
- 4. How long have you worked in this job?
- 5. Do you have any prior experience working in an empowered, or team environment?
- 6. How much freedom do you have to act independently, make important decisions, or change how your job is performed, without obtaining prior management approval?
- 7. How did you respond when you first encountered this situation?
- 8. How did your management respond?
- 9. Have you received any feedback from your customers about their level of satisfaction with your product or service? Has it changed since empowerment was introduced?
- 10. Has empowerment brought any new problems with employee performance, discipline, or expectations?
- 11. Do you think the new approach is important to the company's success? Why?
- 12. Did you receive any training to help you work in the new organization structure?
- 13. Was the training effective in helping you learn to work in an empowered environment? If so, how?
- 14. Was the company or the work restructured to accommodate empowerment? How?

- 15. Did the company's policies or procedures, prior to or after the implementation of an empowered organization structure, change to reflect a different attitude? (Toward such things as work schedules, leave, time clocks, breaks, decision making, etc.)
- 16. Have your managers changed how they relate to subordinates since empowerment was introduced?
- 17. Do your managers actively encourage you to act independently? If so, how?
- 18. Does the company inform you about important business information, such as profitability, sales goals, or other company goals?
- 19. Do your managers ask for your feedback on how to accomplish goals or perform work? Do they seriously consider any suggestions?
- 20. Have you experienced any resistance or problems when you tried to provide feedback?
- 21. Do you think that you are rewarded for acting independently? Examples?
- 22. Are innovative, independent successes widely publicized within the plant? If so, how?
- 23. If an employee attempts something new and the attempt is unsuccessful in achieving the desired end, is there any negative consequence?
- 24. Do you think management could take steps that would make empowerment more effective? If so, what?
- 25. Do you think that workers are more satisfied since empowerment was implemented?
- 26. Have you seen any indicators that work quality, work quantity, or customer satisfaction have improved with empowerment? Explain.

- 27. Has empowerment met the expectations you had prior to its implementation? How?
- 28. Are you satisfied with the way empowerment currently works here, or would you like to change it? How would you change it?
- 29. Is there anything else you want to add, or that you think might be important to understanding empowerment at Bosma?

Appendix B: SUMMARY OF RESPONSES

MANAGERS

- 1. How long have you worked at Bosma? (The responses to questions 1 through 7 were intentionally left blank to maintain the anonymity of the research subjects.)
- 2. To what organization or team do you belong?
- 3. What is your job?
- 4. How long have you worked in this job?
- 5. Do you have any prior experience working in an empowered environment?
- 6. How many employees do you supervise or manage?
- 7. What are their duties?
- 8. How much freedom do you give workers to act independently, make important decisions, or change how their job is performed without obtaining your prior approval?
 - Fully
- I provide initial instructions and give more and more freedom as needed
- It's an on-going thing; more and more over time; moving away from autocratic
- Whatever it takes to get the job done; whatever they need
 - All the freedom they need to do the job

- 9. What would an employee need to do if he or she wanted to change how the job was performed?
 - Just do it
 - Just take the initiative
- Depends on the degree of change; workers are free to solve minor problems
- Probably talk first, but not necessarily, we have guideline procedures
- Just do it; let manager know generally; usually they ask for feedback
- 10. Do the workers act differently since they have been given this freedom? --How? --What problems did these changes bring?
- Yes--more willingness to act--need some direction/structure(who to ask about problems)
- Yes--didn't trust at first and resisted, now accept and like--didn't happen fast enough
- Yes--real positive reaction--experienced workers go first and help the new ones
- Yes--more comfortable, more productive; workers feel important and produce higher
 - quality
- Yes--not all workers want this (especially older workers)--sometimes they waste time
- 11. How have you responded to these changes?
 - I did not see the changes implemented
 - Positively, encouraged
 - Really like it; don't have to manage as much
- I like it, especially since I came from the shop floor
 - It's great; much less demanding on me

- 12. How did the workers respond to these changes?
 - Well
 - Lately, very positively; gain sharing is paying off
 - Positively
 - Positively
 - Good; they love it
- 13. Have you received any feedback from customers about their level of satisfaction with your product or service? --Is it different since empowerment was introduced? --How?
 - No
- Yes, very positive--were happy before, but even more happy now
- Yes--more positive; easier for the customers to deal with the company
 - Yes--complements on quality and delivery times
- Yes--workers talk directly to the customers and are more aware of their needs
- 14. Has empowerment brought any new problems with employee performance, discipline, or expectations?
- Problems with expectations--has progressed slower than some people expected
- Creates some problems, but solves more than are created
- One thing; personality issues between the team leader and team members
 - Some; team leaders are sometimes overbearing
 - No, not really
- 15. Do you think the new approach is important to the company's success?
 - Yes, sure
 - Yes, I'm cautious, but it looks like this works
 - Very! We need to keep up with the other companies
 - Yes; team goals help everyone
- Yes; we're keeping up with the current trends in industry

- 16. Did you receive any training to help you work in the new organization structure?
 - Not at first, but since, yes
- Some Total Quality Management training a couple of years ago
 - Some limited training
 - Had some training, but a lot of it is common sense
 - No; on the job training
- 17. Do you think the training helped you? --How?
 - Yes--helped to overcome the unstructured environment
 - Yes--helped encourage teamwork
- Yes--provided a place to start and warnings about pitfalls
 - Yes--helped with communications
 - Not applicable
- 18. Were the company's organizational structure or work processes changed to accommodate empowerment? --How?
- Yes--old style managers could not accept the changes but they are now gone
 - No, but some more latitude was given
 - Yes--the organization structure was flattened
 - Yes--flatter organization
 - About the same
- 19. Did the company change their written policies or procedures after the new structure was implemented? --If so, how?
 - I believe
- No; we're moving toward this now to resolve specific problems
 - Can't think of any; not much written policy here
 - There were some in place, but not much changed
 - Not policies, but maybe procedures changed

- 20. Have you changed how you relate to your subordinates since empowerment was introduced? --How? --Most notable changes?
 - Not applicable
- In general, yes--I'm trying to get people to solve their own problems
- Yes--everyone is more trusting--surprised to see workers eagerly assume responsibility
- Yes--more relaxed, and feel closer to the workers and their perspectives
- Yes, to some point; have started to learn to let go of authority
- 21. Have your employees changed how they relate to you?
 - Not applicable
 - They are starting to, but it takes time
- They appreciate and provide positive feedback on new freedoms
 - Yes; they know the pressures and are more relaxed
- There are still some people that rely on managers to provide the answers
- 22. Do you think your duties or role in the organization have changed since empowerment was introduced? --How?
 - Not applicable
 - Yes--backing off and releasing control to workers
- Yes--some other managers come to me for help; better relationship with workers
 - Yes--more productive and more of a coach
- Yes--able to let go; leaves more time for me to do other things

- 23. Do you actively encourage your workers to act independently?
 - Not applicable
 - Yes
- Yes, I take problems to the team to find solutions, and they do
 - Yes
 - Yes, I give them a hard time if they don't
- 24. Does the company inform all workers about important business information, such as profitability, sales goals, or other company goals?
 - Yes, through meetings and statements
- Yes, through bulletin boards, newsletters, and meetings
 - Yes, they are good about that
 - Yes, they do now
 - Yes, heavy into it this year, with gain sharing
- 25. Do you think this is important information for employees to have?
 - Yes
- Yes, people need to understand the financial statements
- Yes, it gives a sense of what it takes to run a business and their role in it
- Yes, they want to know what's going on, especially for the gain sharing
- Yes, they see that we have a good bottom line; they know where the expenses are going
- 26. Do you ask for worker feedback on how to accomplish goals or perform work?
 - Sometimes ask, or it occurs naturally
 - Yes, workers responded well to the changes
 - Yes
 - Yes
- Not enough; I do with some individuals, but not enough

- 27. Were there any problems when you first tried to get feedback? --How were they overcome?
 - No problems
 - Yes, fear, disbelief--overcome by repeating desires
 - Yes, in a lot of cases--overcome through trust
- Yes, they brought me every little problem--I took on more responsibility
 - No, not really
- 28. Do you think Bosma motivates its employees to act independently?
 - Yes
 - Yes; some personal acknowledgment to motivate
- Yes, in a general sense; in some cases, the workers do not agree
 - Yes and no; depends on the manager
 - Yes, no doubt
- 29. Do you think this is an important employee trait?
 - Yes
- Yes and no; we want people to make decisions and we need to support them, but workers
- need a boundary around the area to which the decision relates
 - Yes
- Yes; a company of managers doing the work is very powerful
 - Yes

- 30. If an employee acts in an empowered manner and the attempt is unsuccessful in achieving the desired end, is there any negative consequence?
 - Not to the employee
- Sometimes we failed in this, but are getting better; failures are not as important when the
 - company is doing well
- As long as it is not a blatant lack of effort; look at how to prevent in future
- No big deal; look for the solution and learn from your mistakes
- We don't fire them, we don't give them a hard time; everyone makes mistakes
- 31. Do you think management could take steps that would make empowerment more effective?
 - Yes; job descriptions are needed
- Yes; actions need to be consistent; don't revert back to comfort zones
 - Need more training; gain sharing will help
- Yes; need to be more open; need some training on effective teaming
- Yes; managers should have been trained in the beginning
- 32. Do you think that workers are more satisfied since empowerment was implemented?
 - Yes; there is more trust
- Yes; financial success is greater; attitudes are better; empowerment is the key
 - Yes, in general
 - Yes
 - Yes

- 33. What have you seen to indicate that work quality, work quantity, or customer satisfaction have improved with empowerment?
- I believe there has been improvement in work quantity and quality $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1$
 - We are getting more done in the same amount of time
- Quality has improved; workers are more accountable and cooperative
 - Yes
- Yes; improvement in all areas; people like to come to work now
- 34. Has empowerment met the expectations you had prior to its implementation? --How?
 - Yes; I didn't have any
 - Not yet; we are still moving toward the goal
- Yes, in a lot of ways; problems are real, but in the long run it will work out
 - Yes, excellent
- Can't say, but I know it's working; we haven't gotten into it across the plant
- 35. Are you satisfied with the current level of worker empowerment, or would you like to change it? --How would you change it?
 - Satisfied as is
 - No--would like to see empowerment increase somewhat
- I'm satisfied with my area, but the rest of the shop needs more empowerment; we need
 - work center or customer oriented teams
 - No--need more delegation to workers
 - Satisfied with it for now, but it can be improved

- 36. What factors would you identify as being key to successfully implementing employee empowerment?
- Communications; management identify expectations; structured rewards; training
- Gain sharing will help; people need to see a reward, as well as acknowledgment
- It's an on-going thing; some areas are groundbreaking and others are immature, but we are going in the right direction
 - Training; gain sharing will help
- Trusting workers, and letting go as managers; have integrity (what we say is what we do)
- 37. Is there anything else you want to add, or that you think might be important to understanding empowerment at Bosma?
 - No
 - People have some suspicion, but that is changing
- There is worker resistance and resentment, but it is improving
 - We need to put ourselves into the workers' shoes
- Empowerment is a good marketing tool for the company; the customers see us as

something special

NON-MANAGERS

- 1. How long have you worked at Bosma? (The responses to questions 1 through 5 were intentionally left blank to maintain the anonymity of the research subjects.)
- 2. To what organization or team do you belong?
- 3. What is your job?
- 4. How long have you worked in this job?
- 5. Do you have any prior experience working in an empowered, or team environment?
- 6. How much freedom do you have to act independently, make important decisions, or change how your job is performed, without obtaining prior management approval?
 - Pretty much freedom; I know what needs to be done
 - Have a lot
 - Full freedom
- About 80%; I have freedom but I don't make all decisions
 - Not much, I have a control-type supervisor
 - I'm pretty free to do what I want
 - Minimum; the job doesn't lend itself to this
- I have pretty much freedom, if the job gets done; about 70% my own decisions
 - About as much as I need to do the job
 - I have a lot of freedom to do what's needed

- 7. How did you respond when you first encountered this situation?
- I like it, I like the trust, I like to know that what I do is important to the company
 - I was skeptical, I thought it was a fad
 - I was open to it
 - I was unsure if it would work
- Under-impressed; very little freedom for decision making at the worker level
 - I was glad
 - It made sense, I was glad
- I was skeptical, I thought you would get yelled at if you made a bad decision
 - I was glad
- It was difficult at first to see what needed to be done
- 8. How did your management respond?
 - They were happy and encouraging
- They were a little scared to let go at first; they like it now
- Upper management was very positive, middle management is old school and slow to
 - respond
 - I don't know
 - They have a "not-invented-here mentality"
 - They were encouraged
 - Not applicable
- It was hard for them to stop being the boss; it led to conflict
 - They welcomed it
 - Some positive and some negative, based upon outcomes

- 9. Have you received any feedback from your customers about their level of satisfaction with your product or service? -- Has it changed since empowerment was introduced?
 - -Yes--our customers can see the benefits
 - No direct feedback
 - Yes--some good feedback on quality and delivery times
 - No
 - No
 - Not really
 - No
 - Yes--not really
 - Yes--always good feedback, no difference
- Yes--have a lot of positive feedback since empowerment was introduced
- 10. Has empowerment brought any new problems with employee performance, discipline, or expectations?
- Yes, to an extent; people have different ideas on how to do things
 - No
- Somewhat; motivation may be a problem, but gain sharing will help
 - No
 - What empowerment?
 - No, it was a pretty smooth transition
 - No
- The only problem is to identify a worker's area of input
 - No
- Some conflict; 2 or 3 people with different ideas on how to do things

- 11. Do you think the new approach is important to the company's success? --Why?
- Yes--each individual needs to take responsibility for the company's trust
- Yes--we are growing and management has a hard time keeping up without delegating
- Yes--more involvement and caring about bottom line by workers
 - Could be if it works as planned
 - It would work if it were allowed to
- Yes--the floor workers can see ways to improve jobs and cut time
 - Definitely
 - Yes--it improves morale and improves performance
 - Yes--there is more team spirit and a better attitude
- Yes--managers don't always know the best way to do things
- 12. Did you receive any training to help you work in the new organization structure?
 - No
 - I had a seminar a couple of years ago
- Yes, I had a Total Quality Management class a couple of years ago
 - No
 - No
 - A Total Quality Management seminar
 - The Total Quality Management seminar
 - Not extensive
 - A seminar, but mostly on-the-job training
 - No

- 13. Was the training effective in helping you learn to work in an empowered environment? --If so, how?
 - Not applicable
 - Yes--it helped me to keep an open mind
 - Yes--it helped me to deal with people
 - No
 - No
 - Not much
 - Not really
 - Yes--I've had some since then
 - Yes--it gave a basic outline, it was a good start
 - Not applicable
- 14. Was the company or the work restructured to accommodate empowerment? --How?
 - No, it basically stayed the same
 - It stays the same; they talk about changes
 - No
 - No
 - No
 - No
 - No
 - It stayed the same
- Yes--there is a steering committee where employees have an input
 - Some different titles

- 15. Did the company's policies or procedures, prior to or after the implementation of an empowered organization structure, change to reflect a different attitude? (Toward such things as work schedules, leave, time clocks, breaks, decision making, etc.)
 - No, but we do deal directly with the customers now
 - Not really
 - No, not really, it's a slow process
 - No
 - No change
 - No
 - No
 - No
 - No
 - No
- 16. Have your managers changed how they relate to subordinates since empowerment was introduced?
- Yes, we have more personal contact with higher managers now $\dot{}$
- $\,$ Yes, somewhat, they are more willing to let go and not question our actions
 - Yes, some of the fear factor is leaving
 - Not really
 - No
 - Yes, they ask for input rather than directing
 - Not applicable
 - Not much, not really
 - Yes, the group gets together to make decisions
 - Yes, they are more willing to listen to ideas

- 17. Do your managers actively encourage you to act independently? --If so, how?
 - Yes--they ask for our input
 - Yes
 - Yes, somewhat
- Yes, generally--some workers are reluctant to make decisions
 - No
 - Yes--they ask workers for their input
 - Not applicable
- Somewhat--saying something once or twice doesn't change the worker-boss relationship
 - Yes--they ask for input
 - Yes--verbal encouragement
- 18. Does the company inform you about important business information, such as profitability, sales goals, or other company goals?
 - Yes, it's posted
 - Yes
 - Yes, it's posted monthly
 - Yes
 - Yes
 - Yes
 - Yes
 - Yes
- Yes, they have meetings and go over the companies performance
 - Yes, they have the state of the union address

- 19. Do your managers ask for your feedback on how to accomplish goals or perform work? --Do they seriously consider any suggestions?
 - Yes--oh yes
 - Yes--yes
 - Not much--yes
 - Yes--sometimes
 - No
 - Yes--yes
 - No
 - No
 - Yes--yes
 - Yes--yes
 - Yes--yes
- 20. Have you experienced any resistance or problems when you tried to provide feedback?
 - No
 - No
 - No
 - Not really
 - I've had 9 or 10 attempts shot down
 - No
 - Not applicable
 - Not really
 - No
 - Not yet

- 21. Do you think that you are rewarded for acting independently? --Examples?
 - Yes--the approval of management
 - No
 - No, not really; not often
 - No, it's part of the job
 - No
 - Sometimes -- they say "good job"
 - No
 - Not as much as there should be
 - Yes--not financial, but recognition
- Yes--I received a day off with pay and go on trips to visit customers
- 22. Are innovative, independent successes widely publicized within the plant? --If so, how?
- Yes--approval and appreciation is expressed by management
 - Can't think of any
 - No
 - No--it's sometimes put on the bulletin board
 - No
 - Yes--they are put on the bulletin board
 - A few are noticed--a pat on the back
 - Occasionally
 - Yes--put on bulletin board or in the news letter
 - Yes--there is a board for plaques and other things

- 23. If an employee attempts something new and the attempt is unsuccessful in achieving the desired end, is there any negative consequence?
 - Nothing
 - Not usually
 - No
 - No, it's a learning experience
 - I don't know
 - Not really, you just try again
 - No
 - Some when it first started, but it's easing off
 - No
 - Yes, some criticism
- 24. Do you think management could take steps that would make empowerment more effective?
 --If so, what?
 - Yes--give the workers more say in major issues
 - They are working on it, but have a way to go
- Yes--more clear and decisive on what teaming and self-directed mean
 - Certainly--we need more training for the machinists
- Definitely--we could improve by 10 times if my manager were open to empowerment
 - No
 - Yes--follow up on training and encourage team behavior
- Yes--they should fully explain empowerment and tell us where the line is $% \left(1\right) =\left(1\right) +\left(1\right)$
 - Sure--don't know how
- Yes--they could invite team members to sit in on meetings to understand their perspective

- 25. Do you think that workers are more satisfied since empowerment was implemented?
 - -Yes, the ones involved
 - -Yes
- -Yes, but some people are never happy, things are better now than they were
 - Probably a little
 - They would be
 - Sure, they are happy for the freedom
 - Don't know
 - Yes
 - Generally, yes
 - Yes, attitudes are better
- 26. Have you seen any indicators that work quality, work quantity, or customer satisfaction have improved with empowerment? --Explain.
- Oh yes--our department has increased productivity over 50% in the last year
 - It's hard to see
 - Yes, some--bottom line has improved
 - Maybe--not appreciable
 - It would improve
- Yes--quality is better, but quantity of work is about the same
 - No
- Yes--in the office it is easier to get this information
- Yes--things run smoother, but there is room for improvement
- Yes--quality and quantity of work have gone up with process improvements from workers

- 27. Has empowerment met the expectations you had prior to its implementation? --How?
- It has exceeded mine--workers can now order the tools they need on their own
 - It's beginning to
 - Yes
 - Yes, I guess
 - Not applicable
 - Yes--no real surprises
 - No expectations
 - Yes and no--I would like to see more in some areas
 - Yes -- no specifics
 - Yes
- 28. Are you satisfied with the way empowerment currently works here, or would you like to change it? --How would you change it?
 - Yes--we could use more teaming
 - No--it's moving in the right direction
- I'd make a few changes--more specific teams and a definition of what empowerment means
 - Yes, no problem
- No--upper management needs to see what's going on, not just what the supervisor tells
 - them
 - Yes
 - Yes
 - I'm okay with it the way it is
 - Yes--probably some more training
- I'm happy, but there could be more freedom to make decisions like ordering materials or

tools

- 29. Is there anything else you want to add, or that you think might be important to understanding empowerment at Bosma?
- It's not management vs. workers here, we work as a team; we have clearly stated goals
- It's hard to change after so long; given time I will fit in
 - It's a good deal, but kind of vague
 - No
 - No
 - You need to be a "team player"
 - No
 - Empowerment is great, but we need some guidelines
 - In general it is a good thing
 - No

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AFIT RESEARCH ASSESSMENT

The purpose of this questionnaire is to determine the potential for current and future applications of AFIT thesis research. Please return completed questionnaire to: AIR FORCE INSTITUTE OF TECHNOLOGY/LAC, 2950 P STREET, WRIGHT-PATTERSON AFB OH 45433-7765. Your response is important. Thank you.

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3. Please estimate who been accomplished und	at this research woul ler contract or if it ha	d have cost in terms ad been done in-hou	s of ma	anpower and d	lollars if it had		
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4. Whether or not you 3), what is your estima	were able to estable te of its significance?	ish an equivalent va? ?	alue fo	or this researcl	n (in Question		
a. Highly Significant	b. Significant	c. Slightly Significant	d.	Of No Significance			
5. Comments (Please with this form):	feel free to use a sep	parate sheet for mor	re deta	ailed answers	and include it		
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