

HIGH PERFORMANCE WORK PRACTICES IN SMALL  
MANUFACTURING AND PROCESSING  
ORGANIZATIONS WHICH EXPORT

By

ROY D. MARLOW

Bachelor of Science

Southern Illinois University at Carbondale

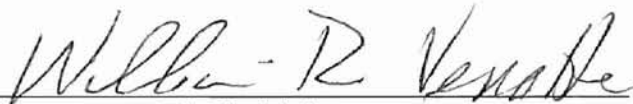
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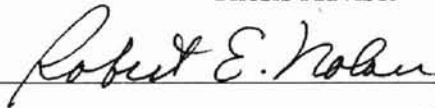
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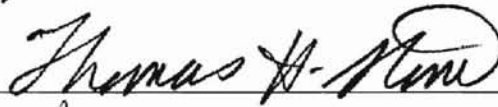
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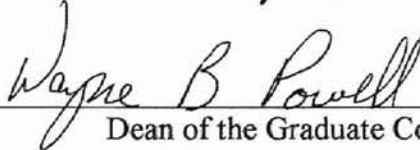
Thesis Approved:



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## CHAPTER I

### INTRODUCTION

“Due to the increase in global competition, cumulative gains in productivity, and reductions in cost on the basis of high-volume, mass production of standardized products is no longer a sufficient basis of competitive advantage for most firms in the advanced industrialized countries (Appelbaum & Batt, 1994, pg. 18).” Competitive advantage in the global economy has shifted toward the production of high quality, competitively priced products which offer the consumer value-added features that make the product more appealing and cost effective to the consumer (Appelbaum & Batt, 1994; Peters, 1987). These basic realizations have led to a reevaluation of human resource practices and their significance in establishing sustainable competitive advantage through the effective utilization of human capital (U. S. Department of Labor, 1994).

Warren Bennis (1966) suggested that democracy becomes a functional necessity whenever a social system is competing for survival under conditions of chronic change. Increases in product quality, product innovation, productivity, cost reduction, and manufacturing flexibility may be more effectively achieved using a complementary human resource system designed to elicit or reinforce the benefits of worker participation (Schuler & Jackson, 1987; Huselid, 1995). However, management has historically viewed

the worker as a means to an end rather than as a sustainable competitive advantage with creative ideas and a valid stake in the success or failure of the organization (Levering, 1988; MacGregor, 1960).

The study of management and of organizations is a fresh topic with only a short history to guide theory and practice. The milestone which marks the beginning of the management movement in American industry was Henry R. Towne's paper, "The Engineer as Economist", presented at a meeting of the American Society of Mechanical Engineers in 1886 (Person, 1929). At that time, no other forum existed in which to address the growing concern for management difficulties created by rapid industrial growth (Terry, 1972). Management, which had previously performed the function of overseeing skilled craftsmen, were now confronted with mass production and the necessity for a division of labor. Since mechanization was the dominant vehicle leading to the capacity for mass production, engineers were logically called upon to adapt solutions to management issues (Person, 1929).

Shortly after the turn of the century, Frederick Winslow Taylor was the first engineer to develop a widely held theory of management which addressed the complexities of leading workers in a mechanized, mass production environment. Taylor's theory, called scientific management, consisted of four main principles which were to be used in order to guide the management of workers (Taylor, 1947; Taylor, 1970). The four principles are:

1. The development of the best method for performing a job. This consisted of a detailed analysis of each job to determine the one best method of performing the job. Workers would be paid on an incentive basis and would receive an increase in earnings for

producing beyond the established standard.

2. The selection and development of workers. Specific selection techniques would be utilized in order to determine the correct person for a particular job and training would be administered regarding the best method for performing the job.

3. The incorporation of the best method and the selected and trained workers. This principle would cause significant changes in management thinking and lead to less resistance from workers largely as a result of the increases in earnings workers could receive by exceeding production standards.

4. The close cooperation of management and workers. The division of labor would reduce the planning and preparation which previously occurred at the worker level and relinquished these tasks to management. This principle would increase cooperation and reduce conflict by making management and workers mutually dependent upon each other.

Scientific management has been a successful management practice, and supported America as a leader in the manufacturing industry through the majority of the twentieth century (Weisbord, 1989). The inadequacies of scientific management lie in the view of the worker as a static component of the larger production system (Levering, 1988).

Considering the lack of behavioral science research concerning human nature and work during most of this century, Taylor's mechanical view of the worker in a complex mass production system is understandable (Weisbord, 1989).

The Hawthorne experiments conducted in the 1920's by Elton Mayo and F. J. Roethlisberger were considered as an initial breakthrough toward the establishment of an understanding of the needs of workers in a production environment (George, 1968;

Landsberger, 1958). These experiments, which led to the development of the human relations movement and its associated emphasis on democratic leadership and improved communication, examined how changes in the physical work environment affected the output of production workers (Gershenfeld, 1987).

During the experiments, changes were made to physical factors such as work area lighting and the duration of worker breaks while observers closely examined the effects of these changes upon worker productivity (Landsberger, 1958). Regardless of the severity of the environmental manipulations, production continually increased. Since the only factor which was not controlled for in the experiment was the interaction of workers with observers, the researchers concluded that human productivity was not based upon physical factors, but was more closely related to the social and psychological needs of workers (Landsberger, 1958). Mayo and Roethlisberger's conclusions have been supported by similar research such as Frederick Herzberg's (1959) motivation/hygiene theory, which also suggests that primary worker motivation is more directly related to social and psychological factors.

The 1950's and 1960's saw an explosion in the field of organizational studies. Organizational behavior succeeded human relations theory, and the study of organizations became rooted in behavioral science theory (Gershenfeld, 1987). Organizations were beginning to be viewed as sociotechnical systems, and employee participation was being seen as a potential method for achieving greater productivity (Weisbord, 1989).

In the book, The Human Side of Enterprise, Douglas MacGregor (1960) attempted to reveal the incongruity between the assumptions management held about



employees and the view which social scientists had developed over past decades.

MacGregor's "Theory X: The Traditional View of Direction and Control" identified management as having made three basic assumptions about the motivation of the average worker (Argyris, 1971):

1. Human beings inherently dislike work and will avoid it if at all possible.
2. Most people must be coerced, controlled, directed, and threatened with punishment to get them to put forth sufficient effort toward the achievement of organizational goals.
3. Human beings prefer direction, have little ambition, avoid responsibility, and desire security above all else.

With Theory X there were two glaring inconsistencies. One was that the theory did not correlate with what was known about human nature. The other was that the theory contradicted most management policy with regard to human motivation, development, and commitment to productivity (Argyris, 1971).

MacGregor developed a second theory, "Theory Y: The Integration of Individual and Organizational Goals," taking into account the breadth of behavioral science research that contributed to a more refined understanding of man and work. Theory Y depicted a much different and more cooperative view of man's potential contributions to work organizations (MacGregor, 1960). Theory Y suggested that:

1. The expenditure of effort in work is as natural as play or rest.
2. Control and the threat of punishment are not the only methods for bringing about effort toward organizational objectives. People exercise self-direction and self-control to meet objectives in which they are committed.

3. Commitment to objectives is a function of the reward associated with achievement.
4. Under proper conditions, the average human being learns not only to accept, but to seek, responsibility.
5. The ability to exercise a high degree of imagination, ingenuity, and creativity in the solution of organizational problems is widely distributed in the population.
6. Under the conditions of modern industrial life, the potentials of the average person are only partially utilized.

MacGregor hypothesized that operating from these assumptions would lead to the design of superior-subordinate relationships in which the subordinate would have greater influence over the activities involved in his or her work and a greater probability of influencing his superior's actions (Argyris, 1971). This increased level of cooperation and influence would result in the Frontline worker willingly becoming more involved in improving the overall effectiveness and performance of the organization (MacGregor, 1960).

A perception of the failure of traditional American management theory to meet the challenges of the world economy began to emerge as productivity and profits steadily declined in the 1970's, resulting in actual drops in productivity in 1979 and 1980 (Bushnell, 1994). Foreign economies which had begun to recover from the devastation of World War II were competing strongly in markets previously dominated by American firms (Bushnell, 1994). This competition increased during the American recession of the early 1980's and created increasing pressure for American firms to undertake innovations in their work systems.

American industry through the seventies and early eighties was still largely based on economies of scale (Kolberg & Smith, 1992). The concept of competing on the basis of quality, innovation, and flexibility were not seen as viable options, and many American organizations resorted to an analysis of the work organization, production techniques and human resource systems of foreign competitors (Appelbaum & Batt, 1994). From this analysis it became evident that competitors from countries such as Japan and Germany had created organizations centered around the principles of continuous improvement and employee participation in decision making and problem solving (Appelbaum & Batt, 1994).

Throughout the past two decades, substantial evidence has been accumulated to suggest that American firms can no longer remain competitive by organizing production around a detailed division of labor, routinization of work, economies of scale, and cost-based manufacturing strategies (Appelbaum & Batt, 1994). Competitiveness in today's markets requires a strategy that emphasizes quality, innovation, speed, and flexibility (Peters & Waterman, 1982). Production systems which compete in markets with these expectations require the utilization of high performance work practices which achieve continuous improvement and secure the participation of Frontline employees in affecting change, continuous learning, and improvement (Appelbaum & Batt, 1994; U.S. Department of Labor, 1993).

High performance work practices are work structures, programs, and policies which guide work processes and encourage worker participation in decision making and problem solving with regards to the daily operations of the company (Pil & MacDuffie,

1996). Many firms have implemented some high performance work practices. Osterman (1994) found that 36% of the manufacturing organizations in a nationally representative sample had a majority of Frontline employees engaged in two or more high performance work practices. Existing evidence suggests that while high performance work practices are singularly successful in improving organizational performance and employee participation, comprehensive systems of work practices are more closely associated with higher productivity, product quality, and increased financial performance (Huselid, 1995; MacDuffie, 1995). Significant association has been identified between the fit or cohesion of business strategy and the use of certain high performance work practices (Arthur, 1992; Youndt, Snell, Dean, & Lepak, 1996).

Even with all the evidence suggesting the positive effects of adopting high performance work practices, many organizations remain reluctant to convert or to invest in high performance work practices or systems (U.S. Department of Labor, 1993). At present, it would appear that not enough information exists about high performance work practices and how such practices may be implemented in order to maximize organizational performance in specific industries. The purpose of this study is to identify the utilization of high performance work practices in small manufacturing and processing organizations and to draw insight into how the articulation of a business strategy affects the utilization of high performance work practices.

## Statement of the Problem

The problem which prompted the study was the lack of research concerning high performance work practices in small organizations. To date, most research on high performance work practices has centered on the examination of large organizations. Researchers cite small organizational size as a largely untested rationale for excluding small organizations from research about high performance work practices.

Small organizations make up a large and growing portion of America's economy (Peters, 1987). Small organizations are also more likely to adopt new production techniques and design product innovations than are large organizations (Brown, Hamilton & Medoff, 1990; Osterman, 1994). In their original and two succeeding follow-up studies, Lawler, Mohrman and Ledford (1989; 1992; 1995) cite their omission of small organizations as a limitation of their studies which may have a substantial effect upon the understanding of high performance work practices.

Research on high performance work practices which has included small organizations suggests a substantial extent of utilization (American Management Association, 1985; Osterman, 1994). The American Management Association (1985) found that small organizations were more likely to utilize certain high performance work practices than were large organizations. Osterman's (1994) study of workplace transformation included organizations with employee populations as small as 50 employees and revealed results comparable to Lawler, Mohrman and Ledford's 1992 study.

A direct examination of the current utilization of high performance work practices and the characteristics which may affect the use of these practices may provide small organizations, entrepreneurs, researchers, academicians, and human resource professionals with a better understanding of the utilization, implications, and effects of high performance work practices in small organizations.

### Purpose of the Study

The purpose of this study was to identify the utilization of high performance work practices in small organizations.

### Research Questions

1. What are the high performance work practices utilized by small organizations?
2. What effects do business strategy have upon the utilization of high performance work practices in small organizations?
3. What are the perceived outcomes of high performance work practices in small organizations?

### Definition of Terms

ALL SALARIED PAY SYSTEM is a system in which all employees are salaried, thus eliminating the distinction between hourly and salaried employees (Lawler, Mohrman & Ledford, 1995).

**ANNUAL BONUSES BASED ON PROFITABILITY** are monetary bonuses shared with employees based on the end of year profitability of the organization.

**BUSINESS STRATEGY** is the definition of an overall objective followed by the utilization of the organization's resources to work toward that objective in the most effective way (Baird, Meshoulam & DeGive, 1983).

**COMPENSATION PROGRAMS** are incentives which recognize and reward individuals and groups for performance and for achieving efficiencies in their work operations (Tannenbaum & Dupuree-Bruno, 1994).

**CROSSTRAINING** is a formal process in which employees receive orientation and supervised experience in performing additional jobs and tasks beyond those in which they are presently assigned.

**EMPLOYEE COMMITTEES** are groups which include non-management employees, which were created to comment on, offer advice on, or determine major policies or business strategies (Lawler, Mohrman & Ledford, 1995).

**EMPLOYEE STOCK OWNERSHIP PLAN** is a credit mechanism that enables employees to buy their employer's stock (Lawler, Mohrman & Ledford, 1995).

**EMPLOYEE SURVEYS** are data collection tools used to encourage, establish, and measure the effectiveness of employee participation (Lawler, Mohrman & Ledford, 1995).

**GAINSHARING** is an incentive plan based on a formula that shares some portion of gains in productivity, quality, cost effectiveness, or other performance indicator, with employees (Lawler, Mohrman & Ledford, 1995).

**HIGH PERFORMANCE WORK PRACTICES** are work structures, programs, and policies which encourage worker participation in decision making and problem solving (Pil & MacDuffie, 1996).

**INFORMATION SHARING PROGRAMS** are designed to provide lines of communication which inform workers of the status of the organization, and allow management to solicit information for improvement, grievance, and the attitudes and moral of workers (Lawler, 1991).

**JOB ROTATION** is a formal program which allows employees to change jobs on a rotating or mutually agreed upon basis as a rationale for promoting crosstraining and diffusing the monotony associated with performing only one job (Wellins, Byham & Wilson, 1991).

**LINE BASED WORK PRACTICES** are work structures and programs which are carried out primarily by Frontline workers and are intended to increase employee participation in decision making and problem solving with regards to their day to day work activities. Work practices which are considered to be line based are quality circles, work teams, job rotation, total quality management, crosstraining, and employee committees.

**MONETARY REWARDS** are financial awards provided to individuals or groups for suggestions, ideas, efficiencies, or performance.

**NON-MONETARY REWARDS AND RECOGNITION** are non-financial awards provided to individuals or groups for suggestions, ideas, efficiencies, or performance.

**ORGANIZATIONAL SIZE** is measured by the total number of permanent and temporary full time workers employed by the company.



**PAY FOR KNOWLEDGE AND/OR SKILL** is a system that sets pay levels based on how many skills employees have or how many jobs they can potentially perform (Lawler, Mohrman & Ledford, 1995).

**PRODUCTION BONUSES** are financial incentives tied to short-term or long-term individual or group performance.

**PRODUCTIVITY BASED PAY** is a pay system which bases compensation on the amount of work performed by an individual or group.

**PROFIT SHARING** is a bonus plan that shares some calculated portion of profits with employees (Lawler, Mohrman & Ledford, 1995).

**QUALITY CIRCLES** are employee participation groups in which volunteers from a particular work area meet regularly to identify and suggest improvements to work related problems (Lawler, Mohrman & Ledford, 1995).

**SELECTIVE STAFFING** is the use of processes or tools which provide a pool of qualified applicants and the screening techniques used to choose the person who best fits the job and the organization based on an assessment of the individual's knowledge, skills, attitudes, and behaviors (Burke & Pearlman, 1990; Huselid, 1995).

**SMALL ORGANIZATIONS** are a collection of management and workers of less than 500 employees. A small business is classified by the American Small Business Administration as any organization which employs less than 500 employees (Brown, Hamilton & Medoff, 1990; Dollinger & Golden, 1992).

STAFF BASED WORK PRACTICES are programs administered by management and support personnel to improve worker participation and work processes. Work practices which are considered to be staff based are training and development, selective staffing, compensation, and information sharing.

SUGGESTION PROGRAM is a system that elicits individual employee suggestions on improving work or the work environment (Lawler, Mohrman & Ledford, 1995).

TOTAL QUALITY MANAGEMENT is a continuous quality improvement program which gives employees information, knowledge, and power to improve the production process and the quality of products (DeCenzo & Robbins, 1994).

TRAINING AND DEVELOPMENT is comprised of planned programs of organizational importance intended to bring about relatively permanent changes in employee knowledge, skills, attitudes, and behaviors (Wexley & Latham, 1982).

WORK TEAMS are groups responsible for a whole product or service and which make decisions about task assignments and work methods (Lawler, Mohrman & Ledford, 1995).

## Assumptions of the Study

The following assumptions apply to the study:

1. It was assumed that organizations with 50 through 499 employees would be sufficiently large to incorporate one or more high performance work practice.
2. It was assumed that representatives with appropriate knowledge of the company and of the company's human resource practices completed the survey instrument.

## Limitations of the Study

The following limitations apply to the study:

1. The study was limited to 242 small organizations in Oklahoma which export products and have a full-time employee population of 50 through 499 employees.
2. The study was limited by each respondent's understanding of their company and of the human resource system of their respective organization.
3. The study was limited to the views of top management for each of the responding companies. Chief officers and human resource executives completed most of the surveys and the views of other levels of the organization may not be represented.

## Summary

The study was designed to identify the utilization of high performance work practices in small organizations. The study also examined the effects business strategy has on the utilization of high performance work practices and examined the perceived impact

## CHAPTER II

### REVIEW OF THE LITERATURE

#### High Performance Work Practices

“America’s competitive future depends, in part, on the flexibility and adaptivity that a high performance workplace and a well trained work force provide (Potter & Youngman, 1995, pg. 217).” America’s management paradigm has shifted to provide employees greater opportunity to influence the outcomes of work organizations. Through changes in the design of work and a renewed emphasis on the importance of training and development, selective staffing, compensation, and information sharing, management has begun to realize the impact workers can have on the attainment of organizational goals (Levine, 1995).

High performance work practices incorporate the desire of human beings to be active participants in the decision making and problem solving processes of their work activities. Based on an analysis of previous research, the most commonly recognized high performance work practices are quality circles, work teams, job rotation, total quality management, crosstraining, employee committees, training and development, selective staffing, compensation, and information sharing (Becher & Gerhart, 1996; Youndt, Snell, Dean & Lepak, 1996). By allowing workers to influence their work activities,

organizations can take competitive advantage of the human element. Creating high performance work environments which fulfill human social and psychological needs allows organizations to reap the benefits of increased productivity, product quality, innovation and flexibility (Schutz, 1994; Mirvis, 1993).

Traditionally, organizations have tended to underutilize their employees and have restricted employee involvement to narrow jobs which require a limited degree of the employee's overall ability (Cotton, 1993). As the behavioral sciences have been merged with the concept of quality and the realization that the global marketplace is an ever changing environment, many organizations have adopted a new view toward the contribution of employees (Cotton, 1993). Social research into the nature of human beings has shown that people take more pride in their work when their efforts are meaningful, their contributions are rewarded, and their efforts directly affect the mission and goals of the organization (Aubrey & Felkins, 1988; Herzberg, 1976).

As an organizational development strategy, high performance work practices have proven to be effective at improving productivity, product quality, flexibility and overall performance (Delaney & Huselid, 1996; Huselid, 1995; Miller & Monge, 1986). High performance work practices have also been determined to have a positive effect upon worker job satisfaction, employee turnover, and employee feelings and commitment toward the organization (Arther, 1994; Huselid, 1995). Allowing workers to solve problems and share in the decision making process creates a sense of pride and value which fulfills higher order personal needs and simultaneously contributes to the overall improvement of the organization (Appelbaum & Batt, 1994; Lawler, 1992).

A review of each type of high performance work practice revealed there to be two distinct types of work practice based on who maintains primary responsibility for carrying out the work practice. These two categories of work practices are line based work practices and staff based work practices. Line based work practices are those in which Frontline workers are primarily responsible for the day to day administration of the program or process with varying degrees of support from staff personnel. Staff based work practices are those in which management or support personnel are primarily responsible for the day to day administration of the program or process with varying degrees of support from Frontline workers.

#### Line Based Work Practices

Line based work practices are work structures and programs which are carried out primarily by Frontline workers and are intended to increase employee participation in decision making and problem solving with regards to their day to day work activities. Work practices which are considered to be line based are quality circles, work teams, job rotation, total quality management, crosstraining, and employee committees.

Within the past few decades, several line based work practices have been designed to allow employees more influence upon the products and processes associated with their work (Appelbaum & Batt, 1994). Each line based work practice attempts to move varying degrees of daily decision making and problem solving authority to the front-line employee. Line based work practices may lead to more fulfilling jobs for employees and allow work to be designed around solving problems, improving product quality,

performing major processes, producing specific products, or improving employee work life (Lawler, 1992; Mirvis, 1993).

Each line based work practice provides for a varying degree of worker participation and may be implemented based on the production, quality, innovation, flexibility, efficiency, cost containment, and work life needs of the organization (Lawler, 1992). Some organizations may incorporate more than one line based work practice for the purpose of improving worker participation and the production process.

### Quality Circles

Quality circles or problem solving teams are small groups of employees whom volunteer to meet on a regular basis during working hours to discuss quality and other related issues (Lawler, 1992). From these discussions, the group determines ways of improving product quality and work design and then make recommendations for improvement (Cotton, 1993). The group discussions allow the employees input into the quality improvement of the products they produce.

Quality circles have been considered a fad in American industry and may be one of the least effective programs for the improvement of participation (Bushnell, 1994; Lawler, 1992). The major contribution of quality circles to high performance is the active utilization of problem solving skills, the upward flow of improvement ideas, and the expansion of the involved worker's overall understanding of both the products they produce and the processes they perform (Lawler, 1991).

## Work Teams

Work teams may be considered the most effective line based work practice for creating high performance and empowering workers (Banker, Field, Schroeder & Sinha, 1996; Wellins, 1992). Work teams, also called autonomous work groups, self-directed work teams, self managed work teams, or work groups, are small groups of employees which work together to produce an entire product or perform a whole process, and are to varying degrees responsible for the decisions made concerning the performance of their work (Appelbaum & Batt, 1994; Wellins & George, 1991). In some cases, the team may also be responsible for support services such as maintenance, purchasing, quality control, and hiring and firing (Lawler, Mohrman & Ledford, 1992; Schilder, 1992). By design, work teams improve productivity, product quality, flexibility, product innovation, and customer satisfaction for the organization while simultaneously improving the quality of work life for employees (Banker, Field, Schroeder & Sinha, 1996; Manz, 1990; Schilder, 1992).

Work teams typically concentrate on the performance of one specific process or the development of one type or range of product (Glaser, 1992). Every member of a work team is normally expected to learn and perform every job required to complete the process or to produce the product (Glaser, 1992; Wellins, 1992). In this environment, crosstraining is encouraged and the team functions as a teaching and planning unit as well as a work unit (Herzberg, 1976).



The use of work teams eliminates layers of management and brings decision making authority to the level in which the work is actually performed (Wellins, 1992). Teams provide a real opportunity for employees to become involved in the success of the organization by creating jobs which are enriched both vertically and horizontally (Lawler, 1991).

### Job Rotation

Job rotation allows employees to change jobs on a rotating or mutually agreed upon basis as a rationale for promoting crosstraining and the diffusion of monotony associated with performing only one job (Wellins, Byham & Wilson, 1991). Job rotation provides several advantages for both the organization and employees. Rotating jobs allows workers to perform more than one position, making it easier for the organization to function flexibly. Job rotation also provides employees with the challenge of expanding their knowledge and skill while broadening their understanding of the companies operations (Wilbur, 1993).

Job rotation may also be an effective method for reducing work related injuries caused by repetitive motion (Hazzard, Mautz & Wrightsman, 1992). Rotating workers from repetitive motion jobs to potentially less harmful positions can provide an improved quality of work life for employees by reducing the likelihood of injury while decreasing the liability to the organization (Hazzard, Mautz & Wrightsman, 1992).

## Total Quality Management

Total quality management is a continuous improvement program which gives employees information, knowledge, and power to improve the production process and the quality of products (DeCenzo & Robbins, 1994). Total quality management programs are based on statistical process control, continuous product improvement, improved customer and supplier relations, and employee involvement (Levine, 1995; Taylor & Felten, 1993). Employee involvement is key to successful quality improvement programs (Gufreda, Maynard & Lytle, 1990; Juran, 1989).

Total quality management programs support high performance through the utilization of quality improvement teams, quality circles and other participative groups (Lawler, Mohrman & Ledford, 1992). Total quality management programs may allow employees interaction with customers and suppliers as part of the quality improvement effort (Gufreda, Maynard & Lytle, 1990). These opportunities for interaction increase employee involvement and worker responsibility for the overall success of the organization (Lawler, Mohrman & Ledford, 1992).

## Crosstraining

Crosstraining is a formal process in which employees receive orientation and supervised experience in performing additional jobs and tasks beyond those in which they are presently assigned (Lawler, 1992). Crosstraining provides workers the opportunity to learn more about the production process and to expand their roles into other work

assignments. Crosstraining also makes workers more adaptable and capable of filling gaps which inherently occur as other workers advance or leave the organization (Wilbur, 1993).

### Employee Committees

Employee committees are groups, including non-management employees, which are created to comment upon, offer advice about, or determine major policies or business strategy (Lawler, Mohrman & Ledford, 1995). Employee committees provide Frontline employees the opportunity to provide feedback and influence the policy and direction of the organization. This level of involvement directly increases the feeling of empowerment for the employees involved and indirectly increases the feelings of empowerment of fellow workers by being represented in the decision making process (Wellins, Byham & Wilson, 1991).

### Staff Based Work Practices

Staff based work practices are programs administered by management and support personnel to improve worker participation and work processes. Work practices which are considered to be staff based are training and development, selective staffing, compensation, and information sharing. These programs are designed to promote and support the organization's strategy and the improvement of performance. Staff based work practices provide the framework which outlines the organization's commitment to optimizing human performance in the creation of a high performance work organization.

## Training and Development

Training and development is planned programs of organizational importance designed to bring about relatively permanent changes in employee knowledge, skills, attitudes, and behaviors (Wexley & Latham, 1982). High performance work organizations place emphasis upon the ability of learning to improve the knowledge, skills, attitudes, and behaviors of workers so that they can contribute positively to the mission and goals of the organization (Potter & Youngman, 1995). Research conducted concerning the impact of training and development has shown that training and development has a positive effect on organizational performance and productivity (Bartel, 1994; Russell, Terborg & Powers, 1985).

Training and development in all of its forms is important because organizations can rarely select people who are proficient in the knowledge, skills, attitudes, and behaviors required to function effectively within the organization (Laird, 1985). Training and development bridges the gap which brings the effective utilization of people and technology together to perform specific tasks or processes in the desired manner or to the desired specifications (Laird, 1985).

A well trained, highly skilled, and knowledgeable worker is more valuable to an organization than one who is not (Gilley & Egglund, 1989). The value of training and developing workers can ultimately be calculated through increases in productivity, quality, innovation, acceptance of change, and worker attitude toward the organization (Bartel, 1994; Gilley & Egglund, 1989; Russell, Terborg & Powers, 1985).

High performance work systems put increasing demands on training and development needs (Lawler, Mohrman & Ledford, 1995). Organization of work practices, such as work teams which expand the roles and responsibilities of workers, also increases the need to develop new knowledge and skills (Wellins, 1992). The inevitability of change and the necessity for continuous improvement create a need for constant learning in organizations (Glaser, 1992). Training and development offered by high performance work organizations may include job skills, problem solving skills, team skills, leadership skills, interpersonal skills, statistical process control, computer skills, and orientation programs (Aubrey & Felkins, 1988; Wellins, Byham & Wilson, 1991).

### Selective Staffing

One of the most obvious techniques organizations can use to enhance the quality of the workforce is the improvement of the selection process (Snell & Dean, 1992). Manufacturing and processing organizations have historically hired persons using simple and informal selection techniques which focus on the individuals physical ability to perform the job (Snell & Dean, 1992). Since traditional sources of competitive advantage such as economies of scale and financial capital have been weakened by globalization, research suggests human capital may be the ultimate source of sustainable competitive advantage (Youndt, Snell, Dean & Lepak, 1996). This implies that for organizations to be competitive they must invest in practices which acquire and develop employees who possess skills and abilities greater than those of the competition (Youndt, Snell, Dean & Lepak, 1996).

Barney (1991) suggests that to be a sustainable competitive advantage a firm's resources, such as human capital, have four attributes: 1. it must be valuable to the extent that it exploits opportunity and neutralizes threats in the organization; 2. it must be rare compared to the organizations current and potential competition; 3. it must be imperfectly imitable; and 4. there cannot be a strategically equivalent substitute.

Recruiting techniques which provide a large pool of qualified applicants, and a selection process which identifies candidates based on their potential, may have a substantial effect on a company's ability to choose employees who are highly skilled and possess the potential to be successful within the organization (Huselid, 1995). Since lower skilled employees require more time, training, and supervision than higher skilled employees, the extra investment organizations place in recruitment and selection can easily be returned through higher productivity, less training, and a more autonomous workforce which increases the organization's competitive advantage (Snell & Dean, 1992).

Recruitment and selection strategies which provide a large pool of qualified applicants and determine the knowledge, skills, attitudes, and behaviors of high potential employees using valid selection techniques such as structured interviews, cognitive testing, personality testing, and ability testing may improve the selection of higher skilled employees, which may sustain or improve the organization's competitive advantage (Terpstra & Rozell, 1993). A survey of 210 heads of human resource management departments found that selective staffing practices were positively related to increases in organizational performance, annual profit, and profit growth (Terpstra & Dean, 1993).

The use of other high performance work practices in unison with selective staffing practices may also have a significant impact on performance. Huselid (1995) found that the use of selective staffing practices in conjunction with incentive compensation, and worker participation resulted in reductions in employee turnover, and increases in profitability and organizational performance.

### Compensation Programs

Compensation programs are incentives which recognize and reward individuals or groups for performance and for achieving efficiencies in their work operations (Tannenbaum & Dupuree-Bruno, 1994). The Consortium for Alternative Reward Strategies Research suggests that organizations view incentive programs as a tool to develop human assets (Sims & Sims, 1994). The primary reason for utilizing incentives in high performance work organizations is to link compensation to performance in order to create incentives for workers to pursue the interests and goals of the team or organization (Lawler, 1991; U. S. Department of Labor, 1993). Incentives may align workers with organizational goals and result in increased productivity, product quality, flexibility, decreased worker turnover, and greater worker job satisfaction (Sims & Sims, 1994; U. S. Department of Labor, 1993).

Several compensation plans are included in the literature concerning high performance work practices. The most common incentives are profit sharing, gain sharing, and employee stock ownership plans. These approaches are considered incentives with the greatest potential for linking employee performance to business



success (Lawler, Mohrman & Ledford, 1995).

Profit sharing provides bonuses to employees based on a specific formula or the discretion of the employer (Mitchell, Lewin & Lawler, 1990). The majority of profit sharing plans utilized in the United States defer employee payment to take advantage of tax breaks and may more appropriately be considered retirement funds (Mitchell, Lewin & Lawler, 1990). Profit sharing has been linked to decreases in employment fluctuation and improvements in productivity and profitability (Mitchell, Lewin & Lawler, 1990).

Gainsharing is an incentive pay system linked to employee involvement which offers bonuses for gains in productivity, product quality, efficiency or reductions in cost to the workers responsible for the gain (Graham-Moore & Ross, 1995). Gainsharing is not necessarily an organization-wide incentive and is designed to share gains with the groups or departments responsible for the gain (Graham-Moore & Ross, 1995).

There are several types of gainsharing plans. The Scanlon Plan, the Rucker Plan and Improshare are all gainsharing plans (Graham-Moore & Ross, 1995). Many organizations also calculate their own formulas for gainsharing. Utilization of gainsharing may be influenced by organizational size. A national survey conducted by the American Productivity Center (O'Dell & McAdams, 1987) found that 60% of the organizations using gainsharing had 500 or fewer employees. Gainsharing is also an incentive program which many organizations target at specific groups within the organization. In a national study of Fortune 1000 companies, Lawler, Mohrman & Ledford (1995) found that only two percent of the organizations surveyed covered 100% of their workforce in a gainsharing program.



The Employee Stock Ownership Plan (ESOP) was developed by lawyer-economist Louis O. Kelso and has evolved over the past three decades (Myers, 1981). The ESOP takes advantage of the entrepreneurial spirit created through ownership and attempts to transfer that spirit into increased motivation and higher levels of performance (Hammer, 1990; Myers, 1981). ESOP is a compensation or benefit plan by which participating employees receive company stock (Hammer, 1990). ESOPs are similar to profit sharing except in that they are not necessarily based on company profits (Hammer, 1990). Like profit sharing, the motivating potential of an ESOP can be diminished if used as a substitute or an addition to a pension plan (Conte & Svejnar, 1990; Hammer, 1990). At present, the effects of employee ownership on firm performance is unclear, but evidence suggests that employee participation improves performance in an employee ownership setting (Conte & Svejnar, 1990).

Compensation practices considered supportive of high performance are the all salaried pay system and "knowledge and/or skill based pay". An all salaried pay system reduces the distinction between exempt and non-exempt employees and establishes the notion of an egalitarian workforce (Lawler, Mohrman & Ledford, 1995).

Knowledge and/or skill based pay establishes pay levels based on the number and types of skills employees have or how many jobs they can potentially perform beyond the position they presently hold (Lawler, Mohrman & Ledford, 1995). Knowledge and/or skill based pay encourages learning, crosstraining, and the flexible utilization of human resources while promoting a greater understanding of the operations of the organization (Lawler, Mohrman & Ledford, 1995). The utilization of knowledge and/or skill based

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pay systems has increased in the past decade (Lawler, Mohrman & Ledford, 1995). This growth may be an important indicator of the willingness of today's organizations to eliminate the use of traditional pay systems for the adoption of new systems which more directly reward the worker while supporting the needs of the organization.

### Information Sharing

Sharing information about organization performance, plans, and goals is a major linking element in the participative process (Aubrey & Felkins, 1988; Lawler, 1992). Information sharing allows workers to plan their work and make informed decisions that contribute to the current goals of the organization (Peters, 1987). The sharing of information also allows workers to alter their behaviors and attitudes in response to changing conditions and to receive feedback on how their efforts are affecting the organization (Lawler, Mohrman & Ledford, 1995). Providing information about strategic plans, organization priorities, budget constraints, operating results, competitor's performance, and plans for new technology empowers workers to act in the interest of the organization (Lawler, Mohrman & Ledford, 1995; U. S. Department of Labor, 1994).

If organizations are to be truly successful, information must flow throughout the company and management must be responsive to the suggestions and ideas of workers at all levels (U. S. Department of Labor, 1994). Sharing information may be facilitated using a variety of methods and media. More traditional information sharing techniques include written suggestion systems, newsletters, attitude surveys, and team or organizational meetings. New technology such as LAN networks, e-mail, and electronic

conferencing also provide organizations with alternative media for sharing information (U. S. Department of Labor, 1994).

While most companies provide information to workers about general operating results, few provide information beyond that available by law to shareholders (Lawler, Mohrman & Ledford, 1995). Lawler, Mohrman, and Ledford (1995) found that only 45% of the companies surveyed in a national study of publicly owned companies shared information with workers about general operating results. Despite the interest in high performance, these results suggest that some organizations may still be unprepared to treat workers as valuable contributors to the firm's success.

### Organizational Size

An analysis of the populations used in previous studies of high performance work practices revealed a broad variation in the selection of sample populations. Lawler, Mohrman, and Ledford (1989; 1992; 1995) utilized Fortune 1000 organizations. The median employee size for responding organizations was 10,000 employees for 1990 and 11,000 employees for 1995. Lawler, Mohrman, and Ledford (1990; 1995) recognized an important limitation of their data was that it says nothing about what is happening in the vast number of smaller companies that constitute a large and growing part of the economy.

An American Management Association (1985) study designed to determine what work alternatives were utilized by the organizations of 10,000 AMA members, found work alternatives to be widely adopted by organizations with fewer than 100 employees.

The AMA study also found that specific work alternatives were more likely to be adopted by small organizations with fewer than 500 employees than by larger organization.

Although small size has been associated with the adoption of fewer high performance work practices (Tannenbaum & Dupuree-Bruno, 1994), the association may be ambiguous (Osterman, 1994). While smaller organizations have fewer resources to devote to human resource innovation, the literature on reorganization and decentralization suggests smaller organizations are more flexible and are more likely to adopt new production techniques than large organizations (Osterman, 1994). Also, small organizations tend to imitate the administrative innovations of large organizations and, considering the evolution of human resource innovation, many smaller organizations may now be adopting the successful innovations pioneered by larger firms (Johns, 1993).

Organizational size may affect human resource innovation in several ways. Jobs in small organizations tend to be less specialized than those in large organizations, suggesting that employees in large organizations may need less training and fewer skills (Jackson, Schuler & Rivero, 1989). Communication and supervision may be more formal in large organizations, and there may be less formalization in small firms (Jackson, Schuler & Rivero, 1989). Size has also been correlated with employee attitudes and behaviors which may affect human resource innovation (Jackson, Schuler & Rivero, 1989). While small organizations may be more likely to adopt specific high performance work practices (American Management Association, 1985), an organization may need to reach some critical mass in workforce size before justifying the adoption of certain high performance work practices (Tannenbaum & Dupuree-Bruno, 1994).

A 1950's study of 211 American manufacturing organizations discovered that purchasing, shipping and receiving, accounting, and engineering are typically differentiated by the time the organization has 75 to 99 production workers (Stewart, 1970). The same study found that production control, quality control, and personnel become differentiated when companies employed 100 to 499 production employees (Stewart, 1970).

Steinmetz (1969) observed that there is a critical point reached in the growth of an organization when it has employed 250 to 300 workers and is making the growth transition between stage two and stage three. At this point, the organization has become large enough that leadership requires a knowledge of human relations and employee behavior (Steinmetz, 1969). The organization must also establish a position in the market and develop a consistent business strategy and structure which typically results in the organization becoming more formalized (Mintzberg, 1979; Steinmetz, 1969).

The most consistent classification of what constitutes a small organization may be the definition established by the U. S. Small Business Administration (Brown, Hamilton & Medoff, 1990). The U. S. Small Business Administration criteria for a small business in most manufacturing and processing industries is an employee size of less than 500 employees (Dollinger & Golden, 1992). A 1986 report from the U. S. Small Business Administration revealed that 26% of the workers in the manufacturing industry are employed by companies with fewer than 500 employees (Brown, Hamilton & Medoff, 1990).

Another variable which may affect the adoption of high performance work practices is the age of the organization (Mintzberg, 1979). As an organization ages, it

becomes more formalized in its behavior (Mintzberg, 1979). Organization structure is also reflective of the age of founding of the organization (Mintzberg, 1979). This presents the idea that even though an organization is small, it may employ varying degrees of formalization, and that its structure may also vary based on age (Mintzberg, 1979). This suggests that young organizations in the early stages of growth may be more likely to adopt high performance work practices as a result of their prevalence in current use than are older organizations which tend to experiment less (Osterman, 1994).

### Business Strategy

Strategy involves the definition of an overall objective and then utilizing the organization's resources in the most effective way to work toward that objective (Baird, Meshoulam & DeGive, 1983). An organization develops its strategic objectives by assessing what it does best and determining how it can capitalize on these competitive advantages (Baird, Meshoulam & DeGive, 1983).

For organizations attempting to develop a competitive strategy, the fit of human resource practices with the chosen strategy can be critical (Schuler & Jackson, 1987). Organizational characteristics such as strategy require a determinable set of employee attitudes and role behaviors if effective performance is to be realized (Schuler & Jackson, 1987; Youndt, Snell, Dean & Lepak, 1996). Since human resource practices are the primary method used to elicit and reinforce employee attitudes and role behavior (Youndt, Snell, Dean & Lepak, 1996), the adoption of human resource practices which align employee behavior with the intent of the strategy are instrumental in the organization

achieving competitive advantage (Burack, Burack, Miller & Morgan, 1994; Schuler & Jackson, 1987).

Schuler and Jackson (1987) identified three business strategies most commonly used to link strategy and human resource practices. The three business strategies are cost reduction, quality, and innovation. The cost reduction strategy attempts to gain competitive advantage by being the low cost producer. The quality strategy seeks to compete on the basis of product quality. The innovation strategy is used to create products which are different from, or are provided in a way in which they may be distinguished from, the competition.

The fit between strategic choice and human resource practices may be difficult to develop and may require some degree of experimentation within each organization (Lengnick-Hall & Lengnick-Hall, 1988). Still, there exists a fundamental understanding for how human resource practices should be aligned to support each of the three strategies (Schuler & Jackson, 1987).

Since people are the most costly and controllable resource within an organization (Youndt, Snell, Dean & Lepak, 1996), a cost reduction strategy would require the use of human resource practices that allow managers to closely monitor and control the activities of employees (Schuler & Jackson, 1987). A human resource system which compliments a cost reduction strategy may include narrowly focused jobs, hiring based on manual skills, hourly pay, individual incentives, and minimal training and development (Schuler & Jackson, 1987).

A quality strategy relies on the ability of the workforce to continually improve



product reliability and to decrease tolerances inherent in the manufacturing process (Youndt, Snell, Dean & Lepak, 1996). This strategy may require a human resource system that provides a high degree of employee participation and commitment, extensive training and development, selective staffing, egalitarian treatment of employees, salaried pay, information sharing, and a work structure that facilitates decision making and problem solving (Youndt, Snell, Dean & Lepak, 1996).

An innovation strategy requires a workforce that is cooperative, flexible, receptive to change, and willing to take risks and experiment (Jackson, Schuler & Rivero, 1989). Innovation strategies require employee attitudes and role behaviors much like those of the quality strategy (Youndt, Snell, Dean & Lepak, 1996). A complementary human resource system is likely to provide a high degree of employee commitment and participation, broad opportunities for training and development, selective staffing, information sharing, rewards for knowledge and skill, and options that allow for employee ownership in the organization (Schuler & Jackson, 1987; Youndt, Snell, Dean & Lepak, 1996).

Evidence suggest that strategies adopted in conjunction with a complementary human resource system can increase performance. Youndt, Snell, Dean and Lepak (1996) found that human capital enhancing human resource practices used in conjunction with a quality strategy were directly related to multiple dimensions of positive operational performance. Arther (1992) in his research on the link between business strategy and the industrial relations systems of 29 American steel mini-mills found strong evidence to support the theory that organizations adopt human resource systems which support their chosen strategy.



## Summary

Chapter II presented the concept of high performance work practices and suggested a relationship between them and the variables of size, age, and business strategy. Much has been written about each of these variables separately, but little research has been conducted to determine the effects of the variables when examined in combination.

Chapter III is a detailed discussion of the methodology used to conduct this descriptive study. The chapter will discuss the definition and selection of the population, the design and piloting of the mail-out survey, the exact procedures used to conduct the mail-out survey, and a description of how the survey data was analyzed. Chapter IV is a detailed analysis of the findings of the survey instrument. Chapter V introduces the conclusions of the study and presents recommendations for practice and for further research.

## CHAPTER III

### METHODOLOGY

#### Introduction

The purpose of the study was to identify the utilization of high performance work practices in small organizations. Chapter III presents the methodology used to conduct this descriptive study. Most research concerning high performance work practices has been limited to large organizations in order to prevent the bias which may be imposed by including smaller organizations with less developed human resource systems.

The intent of the study was to utilize a survey to target a population of small manufacturing and processing companies in Oklahoma. The purpose of this approach was to draw insight into whether perceptions of under development and the lack of innovation in the human resource systems of small organizations are justified and, if so, to discover some of the factors which limit the degree of development and innovation in the human resource systems of small organizations.

#### Subjects

The population for the study was small organizations listed in the 1997 Oklahoma Directory of Manufacturers and Processors which exported products and employed from

50 through 499 full-time permanent and temporary workers. The 1997 Oklahoma Directory of Manufacturers and Processors is published in conjunction with the Oklahoma Department of Commerce and lists all manufacturers and processors in Oklahoma along with relevant data about each company such as annual sales, import and export status, address, employee population, and other related information.

In order to examine the aspect of organizational size and growth, the population was divided into two groups. One group consisted of companies which employed from 50 through 249 workers and the other group consisted of organizations which employed from 250 through 499 workers. This division is based on Steinmetz's (1969) theory that organizations experience a critical point in growth when the firm employs from 250 through 300 workers. This critical point marks the passage from stage two growth into stage three growth which, if not navigated successfully, can lead to the demise of the organization. Successful passage into the third stage of growth requires a greater understanding of human relations and employee behavior, and creates an increased need for formalization and the differentiation of such functions as personnel (Steinmetz, 1969; Stewart, 1970).

Based on information received from the 1997 Oklahoma Directory of Manufacturers and Processors, there were 242 companies in Oklahoma which employed from 50 through 499 workers. Of the 242 companies, 65 of them employed from 250 through 499 workers and 177 of them employed from 50 through 249 workers. For the purpose of conducting the survey, the population was not stratified by size into the two groups. The total population was sampled in order to provide each company with an

opportunity to participate in a second study which used the respondents of this study as its total population.

To prevent unnecessary contamination of members of the total population, members of a similar population were used to pilot test the Human Resource Practice Survey. The pilot test sample consisted of 30 randomly selected companies listed in the 1997 Oklahoma Directory of Manufacturers and Processors which employed from 50 through 499 full-time permanent and temporary workers, but did not export products.

### Instrumentation

Mail-out survey was chosen to provide the ability to generalize about the utilization of human resource practices of small companies throughout the State of Oklahoma. There are several advantages of survey over other data collection methods. Surveys are less time consuming and less expensive, and they allow for the collection of data from large samples (Gay, 1992). Surveys also allow the researcher to obtain data about an array of subject areas provided that the survey can be constructed into concise, clearly designed items which will be interpreted similarly by all members of the sample population (Gay, 1992).

Mail-out surveys also have some disadvantages. Mail-out surveys do not provide for direct contact between the researcher and the survey respondent (Gay, 1992). Survey respondents may base their decisions to respond on the attractiveness of the instrument or the degree to which respondents perceive that they can respond positively to the survey items (Gay, 1992). Mail-out surveys also rely on respondent willingness to spend time

completing and returning the instrument (Fowler & Mangione, 1990).

Rossett (1987) identified five steps for conducting good survey research:

1. Figuring out what you need and from whom.
2. Writing effective items.
3. Writing clear directions.
4. Writing an effective cover letter.
5. Piloting the instrument.

Figuring out what is needed and from whom starts with a thorough review of the literature and discussions with subject matter experts. A review of previous research may provide insight into the types of questions to consider and appropriate populations to research. Subject matter experts provide insight into the use of correct terminology, the relevance of specific questions, and the appropriateness of limited response items.

Writing effective survey items is critical to the success of the survey instrument in collecting the desired data (Rea & Parker, 1992). Since the researcher and the survey participants are not in face to face contact during the completion of the instrument, the use of appropriate terminology, and the inclusion of all possible responses are vital. Survey recipients can easily become disinterested in the completion of survey instruments, so it is important that the survey be neat and professionally designed, and accurately represent the subject matter (Gay, 1987).

Directions for completion of the survey should be kept to a minimum. Complex or lengthy directions may discourage respondents from completing the survey instrument (Rea & Parker, 1992). Complex or lengthy directions may also indicate that the survey is

poorly constructed and will be difficult to complete (Zemke & Kramlinger, 1982).

Writing an effective cover letter is another important aspect of developing a quality survey. The cover letter should introduce the study to the potential respondent and provide a relevant reason for completing and returning the survey. The cover letter should contain a brief description of the study, who is conducting the study, why the survey is being conducted, deadlines for return of the survey, whether or not a follow-up will be conducted, expectations of the respondent with regards to anonymity and confidentiality, and praise from the researcher for participation. The quality of the cover letter may directly affect the return rate of the instrument (Zemke & Kramlinger, 1982).

Pilot testing of the survey instrument should be conducted to eliminate errors and to ensure that the survey reliably and accurately collects the desired information (Gay, 1992). A thorough review of the literature should precede the development of the survey instrument. Once a draft has been developed, the survey may be reviewed by subject matter experts who have pertinent knowledge in the subject area. Once the validation of the instrument has been completed, a pretest of the survey should be conducted to assess the instrument's ability to consistently and reliably gather the desired data. A small sample of the population should be selected to participate in the pilot test. The same procedure which is used to conduct the survey research should be used so a thorough test of the instrument's reliability can be achieved. The data from the pilot test may be analyzed and inconsistencies examined and eliminated prior to conducting the survey research (Zemke & Kramlinger, 1982).

## Pilot Testing of the Human Resource Practice Survey

The reliability of the Human Resource Practice Survey was evaluated by pilot testing the instrument through a preliminary mail-out to members of a similar population. This procedure was conducted by first randomly selecting 30 companies from the pilot test population which was comprised of companies similar to those of the sample population. The pilot test population was randomly selected from all companies listed in the 1997 Oklahoma Directory of Manufacturers and Processors which have an employee population from 50 through 499 workers and do not export products. The pilot test mailing consisted of a cover letter, a coded survey instrument, a glossary of key survey terms, and a self-addressed, stamped envelope.

The cover letter sent to the pilot test sample encouraged respondents to make written suggestions concerning the improvement of the survey items. Likewise, the survey instrument provided extra space for respondents to make written comments concerning the potential improvement of the survey items. This process provided feedback which lead to a refinement of the survey instrument.

From the pilot test population, 12 members or 40% of the population responded. The data from the respondents were aggregated and the responses to the survey items were examined for reliability. As a result of this examination, minor changes were made to a few survey items to improve reliability of the survey instrument. The aggregate data were applied to the three research questions to determine if the data collected would provide effective responses to the research questions. This analysis provided further

assurance of the instrument's reliability and validity.

### Procedure for Conducting the Human Resource Practice Survey

The sample consisted of the 242 organizations which comprise the total population. Each survey mail-out included several items: a cover letter which introduced the survey and provided directions for the return of the survey, a coded survey instrument, a glossary of key survey terms, and a self-addressed, stamped envelope. The 1997 Oklahoma Directory of Manufacturers and Processors provided names and positions of key persons within each listed company. This made it possible to address the envelope and cover letter to either the chief officer or the human resource executive of each company. The ability to direct the mailing to a specific key person increased the likelihood that the instrument would be completed and returned.

In an effort to increase the response rate, all surveys were coded so that a follow-up mailing could be targeted at nonrespondents. A list of the sample organizations, along with their corresponding survey codes, was kept and companies were checked off the follow-up mailing list as their completed surveys were received.

Ten days after the survey deadline, a follow-up mailing was sent to nonrespondents. This mailing included several items: a new cover letter requesting that recipients reconsider participation, a coded survey instrument, a glossary of key survey terms, and a second self-addressed, stamped envelope. The follow-up deadline was established for two weeks after the mail-out. Other than the follow-up mailing, no further attempt was made to receive participation from nonrespondents.



In both the initial and follow-up cover letters, respondents were instructed to indicate their interest in receiving a copy of the aggregate survey results by checking the appropriate box on the last page of the survey instrument. Once data analysis was completed, an aggregate compilation of the research results was provided to all interested respondents.

### Data Analysis

The Human Resource Practice Survey data were compiled and analyzed in response to the three research questions. Percentages and the number of responses per item were used to analyze the descriptive data. All data were presented in aggregate form to ensure the confidentiality of the respondents and their respective organizations.

A Microsoft Access 2.0 database was created to store and organize the survey data. Once all the returned data were entered into the database, Microsoft Excel 5.0 was used to create graphs and calculate the percent of companies selecting each response item. Due to the nature of the descriptive data, the percent and number of companies selecting each response item were the primary tools used for data analysis.

The data were then analyzed in response to each of the three research questions. Demographic, line based work practice, compensation, training and development, information sharing, and selective staffing data were analyzed by percent and number of companies. This analysis was used to report the utilization of high performance work practices. These data were also separated and analyzed by organizational size in order to determine the effect of size between companies employing from 50 through 249 workers

and companies employing from 250 through 499 workers. In instances where comparable data were available, the survey data were also compared to the results of similar studies conducted with large organizations.

Organizational size comparisons were statistically analyzed using chi square to determine whether significant difference existed in the use of high performance work practices between companies employing from 50 through 249 workers and companies employing from 250 through 499 workers. Chi square was also used to determine whether significant difference existed in the utilization of high performance work practices between companies which were and those which were not part of a larger organization. A chi square test compares proportions actually observed with those expected in an effort to determine whether actual and observed proportions are significantly different (Gay, 1992). The expected proportions are usually frequencies which would be expected if the groups being examined were equal (Gay, 1992). The chi square value increases to indicate larger differences between the actual and expected frequencies.

To determine how business strategy affects the utilization of high performance work practices, the data concerning business strategy were analyzed by percent and number of companies articulating each business strategy. The high performance work practice utilization data were then examined by business strategy in order to determine whether or not the articulation of a specific business strategy affected the utilization of specific high performance work practices. Chi square analysis was employed to determine whether significant differences existed between the articulation of a specific business strategy and the utilization of high performance work practices.

Finally, the data concerning the outcomes of high performance work practices were analyzed by percent and number of companies in order to determine the degree of effect which small organizations perceived their human resource systems to have on business and related outcomes. Since it was not possible to establish a quantifiable measurement to define high performance work practice, no statistical analysis was performed in relation to the high performance work practice outcome data.

### Summary

Chapter III was a detailed discussion of the procedures used to conduct the descriptive study and an explanation of the process employed in order to effectively conduct the Human Resource Practice Survey. Chapter IV represents a detailed analysis of the data collected from the survey instrument. Chapter V presents a summary of the results, the conclusions of the study, recommendations for practice and recommendations for further research.

## CHAPTER IV

### PRESENTATION OF THE DATA

#### Introduction

The purpose of the study was to identify the utilization of high performance work practices in small organizations. This chapter contains a descriptive analysis of the Human Resource Practice Survey data. All data were analyzed in response to the three research questions in an attempt to identify the following: the utilization of high performance work practices, the effects of business strategy upon the utilization of high performance work practices, and the perceived outcomes of high performance work practices. The effects of organizational size upon the utilization of high performance work practices were also analyzed.

#### Research Questions

1. What are the high performance work practices utilized by small organizations?
2. What effects do business strategy have upon the utilization of high performance work practices in small organizations?
3. What are the perceived outcomes of high performance work practices in small organizations?

## Human Resource Practice Survey

The sample population for the Human Resource Practice Survey consisted of the 242 organizations which comprised the total population. The study was utilized as a method to select participants for a succeeding research study. The entire population was surveyed in an attempt to create a larger potential sample for the succeeding study.

Each survey mailing included a cover letter which introduced the survey and gave directions for completion and return, a coded copy of the survey instrument, a glossary of key survey terms, and a self-addressed, stamped envelope. The 1997 Oklahoma Directory of Manufacturers and Processors provides names and positions of key persons, making it possible to address the envelope and cover letter to either the chief officer or human resource executive for each company. The ability to direct the mailing to a specific key person increased the likelihood that the instrument would be completed and returned.

In an effort to increase response rate, all surveys were coded so a follow-up mailing could be targeted at nonrespondents. A list of the sample companies, along with their corresponding survey codes, was kept and companies were checked off the follow-up mailing list as their completed survey was received.

Ten days after the survey deadline, a follow-up mailing was sent to nonrespondents. This mailing included a new cover letter requesting that recipients reconsider participation, a coded survey instrument, a glossary of key survey terms, and a self-addressed, stamped envelope. The follow-up deadline was established for two weeks after the mail-out. No further attempt was made to request replies from nonrespondents.

## Return Rate

The return rate from the first survey mailing was 56 surveys or 23% of the total population. Ten days after the return deadline for the first survey mailing, a follow-up mailing was sent to encourage nonrespondents to reconsider participation in the study. The follow-up survey netted an additional 40 returned surveys or 17% of the total population. The response rate for the Human Resource Practice Survey was 96 returned surveys or 40% of the total population.

Upon review of each of the returned surveys, 12 were excluded from aggregate data collection. Four of the excluded surveys were incomplete and eight companies reported not having a temporary or permanent full-time employee population of from 50 through 499 workers. The total adjusted return rate for the Human Resource Practice Survey was 84 usable surveys or 35% of the total population. This relatively high response rate was attributed to the ability to address mailings to a key person within each organization and to the use of a follow-up survey mailing.

A brief telephone survey of 20 members of the sample population which chose not to respond to the Human Resource Practice Survey revealed three main reasons for not completing and returning the survey instrument. The three reasons were a predisposition away from the completion of any survey, situational constraints which contributed to noncompletion, and instrumentation. Seven or 35% of non-respondents sampled identified a predisposition away from completing and returning any survey as their reason for not completing and returning the Human Resource Practice Survey. Ten or

50% of nonrespondents sampled identified situational constraints as their reason for not completing and returning the survey instrument. Situational constraints included situations such as that the person to whom the survey was addressed was no longer with the company; that the company was going through a layoff and there was no time to complete the survey; and that the respondent fully intended to complete the survey but for no specific reason did not find or take the time. Three or 15% of the non-respondents sampled identified instrumentation as their reason for not completing and returning the survey. Instrumentation included the reasons that the survey was too lengthy, that one or more questions were inappropriate to an individual's organization, or that one or more questions were difficult to answer.

#### Analysis of the Human Resource Practice Survey Data

Due to the descriptive nature of the study, the nominal data were reported in the form of the exact number of companies reporting use of a specific practice and by percent of companies reporting use of a specific practice. Chi square was employed to determine whether a difference existed between the smaller and larger organization groups and their utilization of high performance work practices, and to determine whether a significant difference existed between company articulation of a specific business strategy and its utilization of high performance work practices. Chi square was also used to determine whether a significant difference in the utilization of high performance work practices existed between companies which were or were not part of a larger organization.

## Demographics

The chief officers or human resource executives were asked to provide responses to seven demographic items which provided specific information about each company. Table I displays the demographics of responding companies. The most interesting demographic response was to the item which asked if and at what time each company had experienced a layoff in the past five years. The response to this item was evenly divided, with 42 respondents reporting no layoff within the past five years and 42 respondents reporting one or more layoffs within the past five years. Companies employing from 250 through 499 workers also reported a sixteen percent greater incidence of layoff over the past five years than companies employing from 50 through 249 workers. While determining the cause of these layoffs would require further investigation, the data did reflect some concern for the ability of many companies to effectively manage their human resources.



TABLE I

## DEMOGRAPHIC PROFILE OF RESPONDENT COMPANIES

Demographics	Number	Percentage
Person Responding (N=84)		
Chief Officer	35	42%
Human Resource/Personnel	45	54%
Other	4	4%
Number of Full-Time Employees (N=84)		
50 - 246 Employees	63	75%
250 - 499 Employees	21	25%
Age of Company (N=81)		
All Companies	35 years	
50 - 249 Employees	32 years	
250 - 499 Employees	44 years	
Company Part of a Larger Organization (N=77)		
No	40	52%
Yes	37	48%
Layoff in the Past 5 Years (N=84)		
All Companies		
No	42	50%
Yes	42	50%
50 - 249 Employees (N=63)		
No	34	54%
Yes	29	46%
250 - 499 Employees (N=21)		
No	8	38%
Yes	13	62%

TABLE I (Continued)

Demographics	Number	Percentage
Profit Each Year Over the Past 5 Years (N=84)		
All Companies		
No	25	30%
Yes	59	70%
50 - 249 Employees (N=63)		
No	19	29%
Yes	44	71%
250 - 499 Employees (N=21)		
No	6	30%
Yes	15	70%
Percent of Total Production Exported (N=63)		
All Companies		19%
50 - 249 Employees		16%
250 - 499 Employees		29%

#### High Performance Work Practices Utilized By Small Organizations

All but three companies reported that they utilized one or more line based work practices designed to improve performance and worker participation. Table II illustrates the reported use of work practices to improve performance and worker participation.

TABLE II

PERCENT OF COMPANIES UTILIZING LINE BASED WORK PRACTICES TO  
IMPROVE PERFORMANCE AND WORKER PARTICIPATION

Work Practice	Number of Companies (N=84)	Percent
Quality Circles	9	11%
Work Teams	45	54%
Job Rotation	31	37%
Total Quality Management	39	46%
Employee Committees	50	60%
Crosstraining	62	74%

Ninety-six percent of companies reported the utilization of one or more line based work practice, while 80% of companies reported the utilization of two or more line based work practices. With the exception of quality circles, the reported utilization of line based work practices was comparable to those found by Osterman (1994) in his study of workplace transformation which also included companies with as few as 50 employees.

Companies employing from 250 through 499 workers made greater utilization of specific line based work practices. Companies employing from 250 through 499 workers made eleven percent greater utilization of work teams and ten percent greater utilization of employee committees and crosstraining. However, companies employing from 50 through 249 workers did report considerable utilization of line based work practices.

The high utilization of employee committees and crosstraining indicate that many small companies are exploring ways to expand the abilities and participation levels of the

workforce. The extent of the utilization of work teams and total quality management was consistent with utilization found by Lawler, Mohrman and Ledford (1995) among the Fortune 1000 organizations.

While the utilization of line based work practices is encouraging and may be expected to affect the utilization of more progressive compensation programs, an analysis of compensation practices revealed little innovation. Companies continue to rely largely on the traditional pay per hour system which compensates employees for the time they spend on the job rather than their efforts or abilities. With the exception of three companies, all companies reporting the use of a compensation program, other than pay per hour, also reported the use of a pay per hour system. It is of interest to note that each of these three companies also reported being part of a larger organization.

The reliance on a pay per hour compensation program may indicate that small organizations may either not sense a need for alternative compensation programs or they are only beginning to experiment with alternative pay systems. Even more surprising, there were no differences in the utilization of alternative compensation programs between companies employing from 50 through 249 workers and companies employing from 250 through 499 workers.

Being part of a larger organization had some effect on the use of pay for knowledge and/or skill and an all salaried pay system. Companies reporting to be part of a larger organization made nine percent greater utilization of pay for knowledge and/or skill and eight percent greater utilization of an all salaried pay system than did companies not reporting to be part of a larger organization. Table III illustrates the utilization of

specific compensation programs.

TABLE III

PROGRAMS USED TO COMPENSATE FRONTLINE EMPLOYEES

Compensation Program	Number of Companies (N=84)	Percent
Pay Per Hour	81	96%
All Salaried	7	8%
Pay for Knowledge and/or Skill	28	33%
Productivity Based Pay	13	15%

The use of incentive programs by small organizations revealed some utilization of high performance work practices, although the utilization of each incentive practice was ranked substantially lower than were those previously reported by larger organizations. For smaller organizations, size did not seem to influence the utilization of incentive programs. With the exception that companies employing from 250 through 499 workers made 21% greater utilization of non-monetary rewards and recognition than did companies employing from 50 through 249 workers, no substantial difference existed between the two groups. Table IV displays the utilization of incentive programs by small organizations.

TABLE IV

## INCENTIVE PROGRAMS USED BY SMALL ORGANIZATIONS

Incentive Program	Number of Companies (N=83)	Percent
Gainsharing	6	7%
Profit Sharing	29	35%
Employee Stock Ownership	22	26%
Non-Monetary Rewards and Recognition	39	46%
Monetary Rewards	21	25%
Annual Bonuses Based on Profitability	42	50%

A company's position as part of a larger organization did have an effect on the utilization of incentive programs. Companies which were part of a larger organization made 23% greater utilization of employee stock ownership and 18% greater utilization of non-monetary rewards and recognition when compared to companies which were not part of a larger organization. However, companies which reported not being part of a larger organization made 27% greater utilization of profit sharing compared to companies which were part of a larger organization.

The basis for incentives indicated that many small organizations are looking beyond the individual performer and to group or team performance. Eighteen percent of companies reported basing incentives on team performance, while 46% reported basing incentives on both individual and team performance. Only 36% of companies reported basing incentives solely on the performance of the individual.

Company size may influence the decision to base incentives upon team performance. Companies employing from 250 through 499 workers were sixteen percent more likely to offer team based incentives than were companies employing from 50 through 249 workers. This may be representative of the shift away from individual skills and abilities toward a focus on unit based performance which occurs as companies become larger and less capable of applying individual consideration (Lawler, 1992).

Although not at the levels reported by previous studies of large organizations, the small organizations participating in the study reported substantial utilization of several categories of training and development. Eighty-nine percent of all companies reported offering training and development programs for the purpose of improving work outcomes to at least one employee group, while 81% of all companies reported providing training and development programs to all employee groups. Table V illustrates the utilization of training and development programs by small organizations.

TABLE V

TRAINING AND DEVELOPMENT PROGRAMS USED  
TO IMPROVE WORK OUTCOMES

Program	Number of Companies (N=83)	Percent
No Programs	9	11%
Job Skills	53	63%
Facilitation Skills	21	25%
Problem Solving Skills	34	40%
Presentation and Training Skills	27	32%
Quality Improvement Tools and Concepts	43	51%
Interpersonal Skills	42	50%
Personnel and Business Skills	28	33%
Communication Skills	35	42%
Leadership Skills	45	54%
Orientation Program	43	51%
Team Skills	33	39%
Computer Skills	45	54%

While small organizations appear to offer a variety of training and development programs designed to improve work outcomes, the utilization of training and development was disproportionate when examined by organizational size. With the exception of job skills and quality improvement tools/concepts, companies employing from 250 through 499 workers offered more training and development programs than companies employing from 50 through 249 workers. Table VI illustrates the disproportionate utilization of training and development programs between the two groups.



TABLE VI

COMPARISON OF TRAINING AND DEVELOPMENT PROGRAMS UTILIZED  
BETWEEN COMPANIES EMPLOYING FROM 50 THROUGH 249 WORKER  
AND COMPANIES EMPLOYING FROM 250 THROUGH 499 WORKERS

Program	50 - 249 Employees (N=62)	250 - 499 Employees (N=21)	Chi Square
Facilitation Skills	19%	43%	.0003
Problem Solving Skills	33%	62%	7.080
Presentation and Training Skills	29%	43%	.0383
Interpersonal Skills	46%	62%	.0174
Personnel and Business Skills	30%	43%	.0699
Communication Skills	33%	67%	4.900
Leadership Skills	49%	67%	.0064
Orientation Program	41%	81%	1.280
Team Skills	37%	48%	.1239
Computer Skills	49%	67%	.0064

Chi square statistics are significantly different at the .050 level with 1 degree of freedom.

Since the populations of the two employee size groups were disproportionate, chi square statistics were used to determine whether a significant difference existed between the two groups and their utilization of each type of training and development program. Working from the hypothesis that the two groups would make equal use of each training and development program, chi square analysis was performed. With one degree of freedom at the .050 level, this analysis revealed that companies employing from 250 through 499 workers made significantly greater utilization of problem solving skills and communication skills training than did companies employing from 50 through 249 workers.

Being part of a larger organization also had an effect on the utilization of training and development programs. While only statistically significant with regard to team skills, companies which were part of a larger organization made greater utilization of all categories of training and development programs than did companies which were not part of a larger organization. Table VII illustrates the utilization of training and development programs between companies which did and did not report being part of a larger organization.

TABLE VII

COMPARISON OF THE UTILIZATION OF TRAINING AND DEVELOPMENT PROGRAMS BETWEEN COMPANIES WHICH WERE AND COMPANIES WHICH WERE NOT PART OF A LARGER ORGANIZATION

Program	Part of a Larger Organization		Chi Square
	Yes (N=44)	No (N=38)	
Job Skills	82%	71%	.0942
Facilitation Skills	41%	8%	1.940
Problem Solving Skills	52%	29%	.0035
Presentation and Training Skills	39%	26%	.0970
Quality Improvement Tools/Concepts	59%	45%	.1004
Interpersonal Skills	59%	42%	.0487
Personnel and Business Skills	43%	24%	.0215
Communication Skills	52%	32%	.0093
Leadership Skills	70%	37%	3.320
Orientation Program	59%	45%	.1004
Team Skills	57%	21%	4.230
Computer Skills	64%	45%	.0186

Chi square statistics are significantly different at the .050 level with 1 degree of freedom.

While comparative studies examining the use of training and development across industries has shown manufacturing to spend relatively low amounts on training and development (Kochan & Osterman, 1991), this analysis shows that even very small organizations are experimenting with and using training and development as a method to improve employee performance and work outcomes.

Small organizations reported substantial utilization of formal information sharing programs designed to share company news and status information with all employees. Table VIII displays the utilization of information sharing programs to share company news and status information with employees.

TABLE VIII

INFORMATION SHARING PROGRAMS UTILIZED TO SHARE COMPANY NEWS AND STATUS INFORMATION WITH EMPLOYEES

Information Sharing Program	Number of Companies (N=83)	Percent
Company Newsletter	47	57%
Company-Wide Meetings	51	61%
Bulletin Board (Wall or Computer)	79	95%
Other *	14	17%

\* Other includes weekly team meetings, monthly team meetings, bi-weekly team meetings, payroll stuffers/attachments and daily team huddles

With the exception of the publication of a company newsletter, there were no substantial differences between companies employing from 50 through 249 workers and companies employing from 250 through 499 workers. Larger companies were 20% more

likely to publish and distribute a company newsletter to employees than were smaller companies.

The use of suggestion programs was a practice in which small organizations were ranked closely with large organizations. Lawler, Mohrman, and Ledford (1995) reported that 85% of Fortune 1000 organizations utilized formal suggestion programs, while 76% of the small organizations participating in this study reported using formal suggestion programs for the improvement of products, processes, or performance. There were no substantial differences in the utilization of suggestion programs between companies employing from 50 through 249 workers and companies employing from 250 through 499 workers.

Companies with formal suggestion programs were more likely to offer monetary or non-monetary rewards for implementable suggestions. Companies which utilized formal suggestion programs were 16% more likely to offer rewards and recognition for implementable suggestions than were companies without formal suggestion programs. Companies employing from 250 through 499 workers were also more likely to offer rewards and recognition for implementable suggestions than were their counterparts.

Fifty-five percent of small organizations reported using employee surveys or questionnaires to gather information or ideas for the purpose of improvement or change. Overall, the utilization of employee surveys and questionnaires was substantially lower than the utilization of suggestion programs. This may indicate that the management of many small organizations is more open to accepting employee input at their discretion and approval than to actively solicit wide spread employee opinion and feedback data

with the associated expectation of these data being reported to employees and the resultant issues being acted upon and resolved by management.

Companies employing from 250 through 499 workers utilized employee surveys and questionnaires to a greater extent than did companies employing from 50 through 249 workers. The larger companies made 27% greater utilization of employee surveys or questionnaires than did the smaller companies.

Small organizations reported substantial utilization of many tools designed to select the most appropriate person for positions within their respective companies. It is important to note that some of the selection tools illustrated in the following table are innovative or considered to be a high performance work practice, depending on how the tool is used in the selection process. For example, if an unstructured interview was used as the sole tool for making a hiring decision, it would not be a high performance practice. On the other hand, if an unstructured interview was used as a screening interview to determine if an applicant was a suitable candidate for a formal interview, the unstructured interview would then be used in a manner which adds value to the selection process.

The use of temporary employment may also be considered a value-added selection tool, depending on the tool's role in the selection process. If a company uses temporary employment as an opportunity to formally evaluate an employee's performance on the job before making an appropriate hiring decision, it can be an effective selection tool. However, if a company uses temporary employment without the intent of permanently hiring temporary workers who exhibit exceptional performance and behavior, the tool may not contribute to increased levels of performance. Table IX illustrates the utilization

of selection tools for the purpose of choosing the best person for a position.

TABLE IX

SELECTIVE STAFFING TOOLS USED TO CHOOSE  
THE BEST PERSON FOR A POSITION

Selection Tool	Number of Companies (N=84)	Percent
Unstructured Interview	38	45%
Structured Interview	52	62%
Team or Group Interview	30	36%
Multiple Interviews	45	54%
Personality Test	8	10%
Ability Test	34	40%
Reference Checks	61	73%
Background Checks or Investigations	49	58%
Employment Agency	40	48%
Temporary Employment with Company	54	64%

While there appeared to be substantial differences between the smaller and larger groups and their respective utilization of selective staffing tools, a chi square test revealed only the utilization of background checks and investigations by companies employing from 250 through 499 workers to be significantly different from their use by companies employing from 50 through 249 workers. Table X illustrates the utilization of selective staffing practices between the smaller and larger group.

TABLE X

COMPARISON OF SELECTION TOOLS UTILIZED BETWEEN COMPANIES  
EMPLOYING FROM 50 THROUGH 249 WORKERS AND COMPANIES  
EMPLOYING FROM 250 THROUGH 499 WORKERS

Selection Tool	50 - 249 (N=63)	250 -499 (N=21)	Chi Square
Structured Interview	57%	76%	.0029
Team or Group Interview	33%	43%	.1955
Multiple Interviews	51%	62%	.1129
Ability Test	35%	57%	.0008
Reference Check	68%	86%	.0012
Background Check/Investigation	51%	81%	4.360

Chi square statistics are significantly different at the .050 level with 1 degree of freedom.

With the exception of temporary staffing, there were no substantial differences in the utilization of selection tools between companies which were or were not part of a larger organization. Companies reporting to be part of a larger organization made 19% greater utilization of temporary staffing than did companies which were not part of a larger organization. A chi square test revealed no statistically significant difference in the utilization of temporary staffing between the two groups.

#### Business Strategy and High Performance Work Practices

Data analysis for Research Question Two revealed some interesting differences between a company's articulation of a business strategy and its utilization of high performance work practices. Articulation of a quality strategy was the approach most

frequently reported by small organizations participating in the study. Overall, 29 companies or 35% of all participants reported the articulation of a quality strategy. This is not surprising upon considering the emphasis applied to quality improvement in America over the past 15 years. Table XI displays the number and percent of companies which articulated a specific business strategy.

TABLE XI  
BUSINESS STRATEGIES OF SMALL ORGANIZATIONS

Strategy	Number of Companies (N=84)	Percent
No Articulated Strategy	22	26%
Cost Reduction Strategy	16	19%
Quality Strategy	29	35%
Innovation Strategy	17	20%

Articulation of a specific business strategy differed somewhat between the smaller and larger groups. Companies employing from 250 through 499 workers were more likely to have an articulated strategy and made less use of a quality strategy and greater use of an innovation strategy than companies employing from 50 through 249 workers. However, chi square analysis revealed no significant difference in the use of any specific business strategy between the smaller and larger group. Table XII compares the reported use of business strategy between the smaller and larger group.



TABLE XII

BUSINESS STRATEGY COMPARISON BETWEEN COMPANIES EMPLOYING  
FROM 50 THROUGH 249 WORKERS AND COMPANIES EMPLOYING  
FROM 250 THROUGH 499 WORKERS

Business Strategy	50 - 249 (N=63)	250 - 499 (N=21)	Chi Square
No Articulated Strategy	29%	19%	.3036
Cost Reduction Strategy	17%	24%	.2343
Quality Strategy	38%	24%	.0075
Innovation Strategy	16%	33%	.0709

Chi square statistics are significantly different at the .050 level with 1 degree of freedom.

Articulation of a specific business strategy also seemed to affect the operations of the companies choosing each strategy. Companies with a cost reduction strategy were 22% more likely than companies with either no strategy, a quality strategy, or an innovation strategy to have experienced an employee layoff over the past five years. Companies with a quality strategy reported being eleven percent less likely to have made a profit over the past five years. Companies with an innovation strategy on average exported twelve percent more of their total production than companies reporting the use of another type of business strategy.

Companies which articulated a specific business strategy made greater utilization of specific high performance work practices than those which articulated a different business strategy. There appear to be substantial differences in the utilization of specific high performance work practices, depending on the articulated business strategy. A chi square test revealed only the utilization of multiple interviews by companies articulating an

innovation strategy to be significantly greater than the utilization of high performance work practices by companies articulating no strategy, a cost reduction strategy or a quality strategy. Table XIII compares the utilization of specific high performance work practices to the articulation of a business strategy.

TABLE XIII

PERCENT OF COMPANIES USING SPECIFIC HIGH PERFORMANCE  
WORK PRACTICES BASED ON BUSINESS STRATEGY

High Performance Work Practice	No	Cost Reduction	Quality	Innovation
Work Teams	36%	44%	62%	71%
Pay for Knowledge and/or Skill	27%	31%	41%	29%
Gainsharing	5%	0%	3%	24%
Employee Stock Ownership	18%	25%	24%	41%
Company Newsletter	41%	81%	62%	65%
Company-Wide Meetings	68%	81%	62%	94%
Employee Surveys/Questionnaires	32%	73%	55%	71%
Multiple Interviews	32%	44%	55%	82%
Ability Tests	32%	38%	55%	29%

Companies articulating an innovation strategy generally displayed the most substantial utilization of high performance work practices. Companies with an innovation strategy were more likely to utilize work practices to improve performance or worker participation; were more likely to use incentives to reward and motivate employees; and made greater utilization of training and development programs to improve work outcomes. However, no specific business strategy seemed to have a substantial

effect on the utilization of innovative compensation programs, information sharing, or selective staffing practices.

It should be noted that the articulation of a business strategy did have a substantial effect upon the overall utilization of high performance work practices. Companies without an articulated business strategy consistently reported the lowest utilization of all categories of high performance work practices. This indicated that the identification and articulation of a business strategy may increase the likelihood of a company to adopt and utilize high performance work practices.

Small organizations reported close alignment between the articulated business strategy and their human resource system. Sixty-eight percent of all companies identified their company's business strategy and their utilization of high performance work practices to be in alignment to a large or very large extent. This may indicate that many companies are consciously working to align their human resource systems in order to create a human resource strategy which complements their articulated business strategy. Companies employing from 50 through 249 workers reported a lesser extent of alignment between their human resource systems and their business strategy than did companies employing from 250 through 499 workers.

#### Outcomes of Human Resource Practice

Most companies perceived that the outcomes of their human resource systems were positive and that their human resource systems were supportive of their overall success. Employee satisfaction, productivity, and legal compliance were the indicators

perceived as most positively affected by the human resource system of the companies. These outcomes are very different in nature, yet were the three outcomes perceived as most positively affected by the human resource system of the companies. Also, legal compliance was perceived as being affected slightly less by the human resource system than were productivity and worker satisfaction. It is also of interest to note, that although an innovation strategy was found to correspond with a greater utilization of high performance work practices, most companies perceived human resource practices as having little or no general effect on product innovation. Table XIV displays the perceived impact of high performance work practices based on the percent of companies selecting each ranking.

TABLE XIV

OUTCOMES OF HIGH PERFORMANCE WORK PRACTICES

Outcome	Somewhat Negative	Not at All	Somewhat Positive	Very Positive
Productivity	2%	15%	63%	20%
Quality of Products	---	31%	48%	21%
Profitability	1%	24%	59%	16%
Cost Reduction	4%	33%	54%	9%
Employee Satisfaction	1%	10%	60%	29%
Employee Turnover	4%	21%	42%	33%
Employee Absenteeism	6%	20%	50%	24%
Employee Work Life	3%	18%	56%	23%
Product Innovation	1%	67%	25%	7%
Legal Compliance	3%	15%	42%	40%

Respondent perceptions of high performance work practice outcomes also seemed to follow a distinct trend. Respondents consistently identified their human resource practices as having either a positive impact or no impact on each of the ten outcomes. Almost none of the respondents perceived their human resource practices as having a negative impact on any of the ten outcomes.

### Summary

Although it is clear that small organizations do not make as much use of high performance work practices as do large organizations, small companies have adopted substantial use of many high performance work practices. The greatest use of high performance work practices can be found in the utilization of work teams, crosstraining, employee committees, training and development, and selective staffing. The areas of compensation and incentives revealed some degree of innovation and experimentation, but were not utilized to the extent of other high performance work practices. The category of information sharing was not explored in-depth enough to determine the exact extent of innovation.

The articulation of a business strategy was revealed to have a substantial effect on the utilization of high performance work practices. Small companies articulating an innovation strategy made greater utilization of high performance work practices than did companies articulating no strategy, a cost reduction strategy, or a quality strategy. Small companies without an articulated business strategy were less likely than companies with an articulated business strategy to use high performance work practices for the

improvement of employee participation and work outcomes.

Small companies generally perceived their human resource systems to have a positive effect on business outcomes and the success of the company. Small companies perceived productivity, employee satisfaction, and legal compliance to be more positively affected by their human resource system than were the other outcomes. Conversely, companies perceived their human resource systems to have the least effect upon product innovation.

Chapter V presents conclusions of the study and recommendations for further research. Chapter V also explores recommendations for practice and attempts to provide some insight into the potential for the expanded utilization of high performance work practices in small organizations.

literature pointed to mail-out survey as the most common data collection method. An initial draft of the Human Resource Practice Survey was created based upon the literature, then it was validated by subject matter experts and pilot tested with a sample population similar to that of the research population. The survey was mailed directly to either the chief officer or the human resource executive for each company in the population. A follow-up survey was mailed to the nonrespondents. The total response rate was 96 surveys or 40% of the total population and the usable response rate was 84 surveys or 35% of the total population.

All data collected from the Human Resource Practice Survey were stored in aggregate form and analyzed by the percent and number of companies reporting the utilization of each high performance work practice. Chi square tests were performed to determine whether a significant difference existed in the use of high performance work practices between companies employing from 50 through 249 workers and companies employing from 250 through 499 workers. Chi square tests were also performed to determine whether a significant difference existed in the use of high performance work practices between companies which were part of a larger organization and those which were not part of a larger organization.

Small organizations were found to make substantial use of many high performance work practices. The practices most often utilized to increase worker participation and improve work outcomes were work teams, crosstraining, employee committees, training and development, and selective staffing. Little utilization of high performance compensation practices was reported.

Organizational size seemed to affect the utilization of high performance work practices. Companies employing from 250 through 499 workers used most high performance work practices to a larger extent than did the companies employing from 50 through 249 workers. Companies employing from 250 through 499 workers also exported 13% more of their total production than did companies employing from 50 through 249 workers.

The companies which were part of a larger organization reported greater utilization of high performance work practices than did those companies which were not part of a larger organization. Companies which were part of a larger organization made greater utilization of work teams, pay for knowledge and/or skill, all salaried pay, and all programs of training and development than did those companies which reported not being part of a larger organization.

The type of business strategy articulated was related to the utilization of high performance work practices. The companies with no articulated business strategy made the least use of all types of high performance work practices. The companies articulating an innovation strategy used high performance work practices to a larger extent than did companies articulating either no business strategy or a cost reduction or quality strategy.

Overall, small companies which exported products perceived their human resource systems to have a positive effect upon business and related outcomes. These companies perceived employee satisfaction, productivity, and legal compliance to be more positively affected by their human resource systems than other business or related outcomes. Such companies perceived product innovation to be the least affected by their human



resource systems. Small companies also consistently perceived their human resource systems to have no negative effects upon business and related outcomes.

## Conclusions

High performance work practices are work structures, programs, and policies which encourage worker participation in decision making and problem solving. For most organizations, people are their most expensive and their most valuable asset. The design and administration of a human resource system which effectively utilizes high performance work practices to satisfy strategic demands, as well as the sociotechnical needs of the workforce, is critical to the establishment of competitive advantage through the optimal utilization of human capital. Four major conclusions have been drawn from the study.

1. Small organizations are less committed to the use of high performance work practices than are larger organizations. Small organizations with fewer human resources have a greater need to develop the workforce and to take advantage of worker participation than do larger organizations. Small organizations have fewer financial and materials assets and must rely more exclusively upon the creativity and ingenuity of the workforce for competitive advantage. Workers in small organizations require development opportunities and need to be managed through a system of high performance work practices which allow them to take advantage of the entrepreneurial spirit inherent in many small companies.

increased earnings by exceeding the established standard and being rewarded for such effort on the job. Behavioral science management contends that workers should be compensated based on their skills and abilities, their commitment to the goals of the organization, or in a manner which creates egalitarianism and encourages participation. Compensating workers for the time that they spend on the job accomplishes none of these objectives.

The lack of utilization of high performance compensation practices demonstrates reluctance by management to fully vest workers in the success or failure of the company. Despite what is known about human motivation, management in most companies remains uncomfortable with establishing formal methods for recognizing employee ownership in decision making and problem solving activities. For workers to feel that an organization sincerely identifies them as stakeholders in its future success, management and human resource professionals may have to come to terms with the need to pay workers for what the company expects of them.

Workers consistently identify appreciation from management for a job well done as a key motivator. Designing and implementing a compensation program which creates a total reward system consistent with the outcomes management expects from workers is critical to a company's ability to take full competitive advantage of the workforce.

3. The relationship to a larger organization provides support for the commitment to the use of high performance work practices. The greater prevalence of high performance work practices in larger plants within a corporation may provide small plants within that same corporation with benchmarking opportunities not readily available to small, privately

owned companies.

Some corporations may also have corporate human resource systems which take advantage of the best practices utilized in each of the plants owned by the corporation. Since smaller organizations are typically younger than larger organizations, a small plant which inherits a corporate human resource system may benefit from the best practice use of high performance work practices in larger corporate plants.

4. Small organizations with no articulated business strategy are not as committed to the use of high performance work practices as are companies with an articulated business strategy. The lack of an articulated business strategy leaves management and human resource professionals grasping for solutions to the company's human resource issues and may detract from the systematic operations of the organization. An articulated business strategy provides the framework for the creation of a collaborative human resource strategy which guides the utilization of that company's human capital.

The human resource function is not a program which can be administered one issue at a time as it arises. The program must anticipate the needs of the organization, provide direction to management for the establishment of effective relationships with workers, and function as a contract which represents what workers can expect to receive for their performance. Binding management and workers to a mutually satisfying work arrangement is a critical function of the human resource system. For the human resource system to be able to promote the achievement of high performance, the direction of the organization must be clearly defined.

## Recommendations for Further Research

Additional research in human resource development and human resource management in small organizations is needed.

1. Research is needed in order to explore why small organizations do not make greater use of high performance compensation practices.
2. Research should be conducted in order to examine why smaller organizations use high performance work practices to a lesser extent than do larger organizations.
3. Further study is needed in order to determine the relationship between the articulation of a business strategy and the use of high performance work practices in small organizations.
4. Additional research should be conducted in order to identify the quantifiable outcomes associated with the use of high performance work practices in small organizations.

## Recommendations for Practice

The following recommendations for practice are provided in order to assist small organizations in the improved use of high performance work practices.

1. Small organizations should commit themselves to the use of high performance work practices early in their growth. Adopting the use of high performance work practices consistent with the goals and objectives of the company at the earliest stages of growth establishes the company's desire to take competitive advantage of the workforce and to create an environment that encourages workers to achieve beyond expectations.

Companies do not have to reach a critical mass with regards to organizational size before they consider the use of high performance work practices. Companies with fewer workers typically demand more from each worker than do companies with more human resources. Companies should take advantage of their small size and experiment with the use of high performance work practices in order to develop a consistent human resource system which meets strategic demands and the sociotechnical needs of the workforce.

2. Small organizations should compensate workers for their effort and/or commitment. Small organizations should examine their use of traditional pay per hour systems and determine if this type of compensation program is consistent with what they expect from workers. Paying workers for the time that they spend on the job does not encourage workers to expend extra effort toward the achievement of organizational goals or encourage worker commitment to the improvement of performance.

If an effective awards strategy is to be implemented, management and employees should work collaboratively to examine and identify the specific role employees can play in the success of the organization. The result of this process should be used to design a total rewards strategy which includes a combination of compensation and incentive practices consistent with the strategic needs of the organization and the associated needs of workers.

3. Small organizations should benchmark the use of high performance work practices in larger organizations. Large organizations consistently lead small organizations in the use of high performance work practices. This use creates a broad range of benchmarking

opportunities which offer smaller organizations unique insight into many best practices that can be incorporated into their organizations.

Many large organizations freely offer other companies best practice and benchmarking opportunities. Research and literature about the best practice use of specific high performance work practices in many large organizations is also readily available and provides a wealth of information about the effects these practices can have on performance and business outcomes. Small companies should take advantage of the experimentation and expense incurred by large organizations in refining the use of high performance work practices and use these data to learn from the successes and failures of large organizations.

4. — Small organizations should articulate a business strategy early in their growth. The articulated business strategy should be defined through a strong sense of vision and should establish the principles for the creation of an integrated human resource strategy. The human resource strategy and the needs of the workforce can then be used as the framework for creating a human resource system which takes competitive advantage of the company's human resources. The human resource system should not only define how the organization intends to utilize workers to fulfill its mission but act as a mutually implied contract between management and workers.

The human resource system should provide management and workers with a clear set of guidelines for productive interaction. The system should define clear guidelines for the leadership of workers as well as expectations and rewards for workers. The human resource system should not be a one sided program designed to prevent the

organization from incurring any unnecessary liability. The human resource system should identify how the company will provide information to workers, in what ways the company encourages participation, and the types of rewards the company intends to provide for the improvement of worker participation and ownership in the organization.

Creating this type of sociotechnically balanced human resource system allows a company to take competitive advantage of the human desire to achieve, while also providing workers with an opportunity to benefit and to have ownership in the associated gains in performance. The establishment of a human resource system which satisfies both strategic needs and the human desire to become self-actualized is the catalyst for the creation of a high performance work organization.

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## APPENDICES



**APPENDIX A**

**COVER LETTERS FOR THE INITIAL AND FOLLOW-UP SURVEY MAILINGS**

Dear Key Person's Name:

We are conducting research in conjunction with OSU to determine the use of specific human resource practices and the effect these practices have on performance and work outcomes.

This survey is being mailed to Oklahoma companies listed in the 1997 Oklahoma Directory of Manufacturers and Processors which export products and have an employee population of from 50 through 499 workers.

If there should there be a person more knowledgeable of your company's human resource practices, please feel free to pass this survey along to them.

The survey should take approximately 5 to 10 minutes to complete and your input will provide Oklahoma State University, state agencies, and Oklahoma companies with information concerning the current use of human resource practices and the impact these practices have on Oklahoma industry.

To make completion of the survey easier, a Glossary of Key Survey Terms has been included to provide specific definitions for many of the response items.

All responses will be confidential and none of the data you release will be viewed by anyone other than the researchers.

Once you have completed the survey, please seal the survey in the self-addressed stamped envelope and drop it in the mail. Keep or discard the other items. In the event your response is not received by **Friday, September 9th**, a second survey will be mailed to provide your company a final opportunity to participate.

If you would like a copy of the complete results of the survey, please check *Yes* on the last page of the instrument and we will be happy to mail you a copy once the survey process is complete.

Your valuable support is greatly appreciated and will help Oklahoma State University to collect data which broadens the present understanding of human resource practices and the impact these practices have on business success.

Sincerely,

Roy D. Marlow  
Graduate Student

William R. Venable  
Associate Professor

Dear Key Person's Name:

We would appreciate you taking a few moments to reconsider your participation in the Human Resource Practice Survey.

This survey will take approximately 5 to 10 minutes to complete and your valuable input will help Oklahoma State University and other state agencies to understand what human resource practices are utilized in Oklahoma industry and what impact these practices have on business success.

If there should be a person in your company with more appropriate knowledge of your human resource practices, please pass this survey along to them so your company may be represented in the study.

To make completion of the survey even easier, a Glossary of Key Survey Terms has been included to provide specific definitions for many of the response items.

All responses will be confidential and none of the information you provide will be seen by anyone other than the researchers.

Once you have completed the survey, just seal it in the enclosed, self-addressed, stamped envelope and drop it in the mail by Friday, October 3rd.

If you would like a copy of the survey results, check *Yes* on the last page of the survey and we will be happy to send you a copy as soon as the study is complete.

Your voluntary participation in this project is greatly appreciated and will help Oklahoma State University to broaden the present understanding of human resource practices and the impact these practices have on business success. Thank you.

Sincerely,

Roy D. Marlow  
Graduate Student

William R. Venable  
Associate Professor

APPENDIX B

HUMAN RESOURCE PRACTICE SURVEY INSTRUMENT

## HUMAN RESOURCE PRACTICE SURVEY

*The following questions are in regards to your company's human resource practices. Unless otherwise indicated, please check the most appropriate response(s) for each item.*

### **Demographics**

1. What is your Title or Position within the company?  
 President / General Manager / Plant Manager / CEO / COO / CFO  
 Vice President, Director, or Manager of Human Resources or Personnel  
 Other (please specify) \_\_\_\_\_
  
2. How many full-time, permanent and temporary persons are currently employed by your company?  
 1 through 49 employees                       50 through 249 employees  
 250 through 499 employees                       500 or more employees
  
3. What year was your company founded? \_\_\_\_\_
  
4. Is your company part of a larger organization?  
No   
If Yes, what year was the larger organization founded? \_\_\_\_\_
  
5. Has your company experienced a layoff in the past five (5) years?  
No   
If Yes, what year was the last layoff? \_\_\_\_\_
  
6. Has your company made a profit each year over the past five (5) years?  
No     Yes
  
7. Does your company export products?  
No   
If Yes, what percent of your company's total production is exported? \_\_\_\_\_

### **Line Based Work Practices**

8. What work practices are currently utilized by your company to improve performance and/or worker participation? **(Check all which apply)**  
 quality circles     total quality management  
 work teams     employee committees  
 job rotation     crosstraining  
 other (please specify) \_\_\_\_\_

## **Compensation**

9. What compensation programs are utilized by your company to compensate front-line employees? **(Check all which apply)**
- |   |   |
|---|---|
| <input type="checkbox"/> pay per hour                 | <input type="checkbox"/> pay for knowledge and/or skill |
| <input type="checkbox"/> all salaried pay system      | <input type="checkbox"/> productivity-based pay         |
| <input type="checkbox"/> other (please specify) _____ |   |
10. What incentive programs are utilized by your company? **(Check all which apply)**
- |  |   |
|--|---|
| <input type="checkbox"/> gainsharing                           | <input type="checkbox"/> profit sharing     |
| <input type="checkbox"/> employee stock ownership              | <input type="checkbox"/> production bonuses |
| <input type="checkbox"/> non-monetary rewards and recognition  | <input type="checkbox"/> monetary rewards   |
| <input type="checkbox"/> annual bonuses based on profitability |   |
| <input type="checkbox"/> other (please specify) _____          |   |
11. Are your company's incentive programs individual or team based?
- |                                     |                               |                               |
|-------------------------------------|-------------------------------|-------------------------------|
| individual <input type="checkbox"/> | team <input type="checkbox"/> | both <input type="checkbox"/> |
|-------------------------------------|-------------------------------|-------------------------------|

## **Training and Development**

12. Does your company offer training and development programs designed to improve work outcomes?
- No
- If Yes, what types of training and development programs does your company offer to employees? **(Check all which apply)**
- |  |   |
|--|---|
| <input type="checkbox"/> job skills  | <input type="checkbox"/> communications skills  |
| <input type="checkbox"/> facilitation skills   | <input type="checkbox"/> leadership skills      |
| <input type="checkbox"/> problem solving skills  | <input type="checkbox"/> orientation program(s) |
| <input type="checkbox"/> presentation/training skills  | <input type="checkbox"/> team skills            |
| <input type="checkbox"/> quality improvement tools/concepts  | <input type="checkbox"/> computer skills        |
| <input type="checkbox"/> interpersonal skills (i.e. handling conflict, providing feedback, etc.)   |   |
| <input type="checkbox"/> personnel and business skills (i.e. employee selection, accounting, etc.) |   |
| <input type="checkbox"/> other (please specify) _____  |   |
13. Which employee groups receive training and development in your company?
- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> All Employee Groups  | <input type="checkbox"/> Executives  |
| <input type="checkbox"/> Managers             | <input type="checkbox"/> Supervisors |
| <input type="checkbox"/> Front-line Employees |                                      |

### **Information Sharing**

14. What information sharing programs does your company utilize to disseminate company news and status information to employees? **(Check all which apply)**  
 company newsletter  
 company-wide meetings  
 bulletin board (computer or wall)  
 other (please specify) \_\_\_\_\_
15. Does your company utilize a suggestion program which allows employees to make suggestions for improvement of products, processes, or performance?  
No  Yes
16. Does your company offer monetary and/or non-monetary rewards and recognition to employees for implementable suggestions?  
No  Yes
17. Does your company utilize employee surveys or questionnaires to gather information or ideas for the purpose of improvement or change?  
No  Yes

### **Selective Staffing**

18. What selection tools are used by your company to choose the best person for a position? **(Check all which apply)**
- |  |   |
|--|---|
| <input type="checkbox"/> unstructured interview                | <input type="checkbox"/> team or group interview        |
| <input type="checkbox"/> structured interview                  | <input type="checkbox"/> multiple interviews            |
| <input type="checkbox"/> personality tests                     | <input type="checkbox"/> ability tests                  |
| <input type="checkbox"/> reference checks                      | <input type="checkbox"/> background check/investigation |
| <input type="checkbox"/> employment agency (state or private)  |   |
| <input type="checkbox"/> temporary employment with the company |   |
| <input type="checkbox"/> other (please specify) _____          |   |

### **Business Strategy**

19. Does your company have an articulated business strategy?  
No  **(Proceed to item 21.)**  
If Yes, which strategy most accurately reflects your company's business strategy?  
**(Check the single most appropriate response)**  
 cost reduction strategy  
 quality strategy  
 innovation strategy

20. To what extent do your company's human resource practices complement or align with the business strategy? **(Circle the appropriate response)**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Very Small</b>	<b>Small</b>	<b>Large</b>	<b>Very Large</b>
<b>Extent</b>	<b>Extent</b>	<b>Extent</b>	<b>Extent</b>

**Outcomes of Human Resource Practices**

21. What impacts have your company's human resource practices had on each of the following outcomes? **(Check one response for each outcome)**

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b><u>Outcome</u></b>	<b>Very Negative</b>	<b>Somewhat Negative</b>	<b>None at All</b>	<b>Somewhat Positive</b>	<b>Very Positive</b>	
1. productivity	_____	_____	_____	_____	_____	
2. quality of products	_____	_____	_____	_____	_____	
3. profitability	_____	_____	_____	_____	_____	
4. cost reduction	_____	_____	_____	_____	_____	
5. employee satisfaction	_____	_____	_____	_____	_____	
6. employee turnover	_____	_____	_____	_____	_____	
7. employee absenteeism	_____	_____	_____	_____	_____	
8. employee work life	_____	_____	_____	_____	_____	
9. product innovation	_____	_____	_____	_____	_____	
10. legal compliance	_____	_____	_____	_____	_____	

*Lastly, please indicate whether or not you would like an aggregate copy of the survey results once the study is complete. No \_\_\_\_\_ Yes \_\_\_\_\_*

**Thank you for completing the survey. Please place the completed survey in the envelope provided and drop it in the mail. Your time and valuable input are greatly appreciated.**



APPENDIX C

GLOSSARY OF KEY SURVEY TERMS

## **GLOSSARY OF KEY SURVEY TERMS**

**ABILITY TEST** - examination or formal activity designed to provide insight into, or to demonstrate, the skill or capability of an applicant.

**ALL SALARIED PAY SYSTEM** - system in which all employees are salaried, thus eliminating the distinction between hourly and salaried employees.

**ANNUAL BONUSES BASED ON PROFITABILITY** - financial compensation or bonuses shared with employees based on the end of year profitability of the organization.

**COST REDUCTION STRATEGY** - a strategy by which a company attempts to gain competitive advantage by being or becoming the low cost producer.

**CROSS TRAINING** - a formal process in which employees receive orientation and supervised experience in performing additional jobs and tasks beyond those in which they are presently assigned.

**EMPLOYEE COMMITTEES** - any group or committee that includes non-management employees, created to comment on, offer advice on, or determine major policies and/or business strategies.

**EMPLOYEE STOCK OWNERSHIP PLAN** - a credit mechanism that enables employees to buy their employer's stock.

**EMPLOYEE SURVEY** - data collection tool used to encourage, structure, and measure the effectiveness of employee participation.

**GAINSHARING** - an incentive plan based on a formula that shares some portion of gains in productivity, quality, cost effectiveness, or other performance indicator with employees.

**INNOVATION STRATEGY** - a strategy by which a company attempts to gain competitive advantage by producing products that are different or differentiated from those of the competition.

**JOB ROTATION** - a formal program which allows employees to change jobs on a rotating or mutually agreed upon basis as a rationale for promoting cross training and diffusing the monotony associated with performing only one job.

**MONETARY REWARDS** - financial awards provided to individuals or groups for suggestions, ideas, quality, or performance.

**MULTIPLE INTERVIEWS** - a formal selection process which consistently provides for the conducting of two (2) or more interviews to make a hiring decision.

**NON-MONETARY REWARDS AND RECOGNITION** - any non-monetary award or recognition of achievement provided to individuals or groups for suggestions, ideas, quality, or performance.

**PAY FOR KNOWLEDGE AND/OR SKILL** - system that sets pay levels based on how many skills an employee has or on how many jobs an employee can potentially perform.

**PERSONALITY TEST** - examination or formal activity designed to provide insight into the behavior and/or attitude of an applicant.

**PRODUCTION BONUS** - financial compensation tied to short-term or long-term individual or group performance.

**PRODUCTIVITY BASED PAY** - a pay system which bases compensation on the amount of work performed by an individual or group.

**PROFIT SHARING** - bonus plan that shares some portion of profits with employees.

**QUALITY CIRCLE** - structured employee participation group in which volunteers from a particular work area meet regularly to identify and suggest improvements to work-related problems.

**QUALITY STRATEGY** - a strategy by which a company attempts to gain competitive advantage based on the quality of its products.

**STRUCTURED INTERVIEW** - a selection interview which uses pre-selected or pre-determined questions and/or probing to gather information about an applicant.

**SUGGESTION PROGRAM** - a system that elicits individual employee suggestions on improving work or the work environment.

**TEAM OR GROUP INTERVIEW** - a single selection interview which is conducted by two (2) or more interviewers either simultaneously or concurrently.

**TOTAL QUALITY MANAGEMENT** - a continuous quality improvement program which gives employees information, knowledge, and power to improve the organization of work, the production process, and the quality of products.

**UNSTRUCTURED INTERVIEW** - a selection interview which relies entirely on in-prompt-to questioning and probing to gather information about an applicant.

**WORK TEAMS** - any group responsible for a whole product or service and which make decisions about task assignments and work methods.

APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL

OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD  
HUMAN SUBJECTS REVIEW

Date: 07-09-96

IRB#: ED-96-025

**Proposal Title: AN ANALYSIS OF EMPLOYEE PARTICIPATION AND INVOLVEMENT  
PRACTICES OF MANUFACTURING FIRMS IN OKLAHOMA**

**Principal Investigator(s):** William Venable, Roy Marlow

**Reviewed and Processed as:** Modification and Continuation

**Approval Status Recommended by Reviewer(s):** Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT  
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE  
APPROVAL PERIOD.

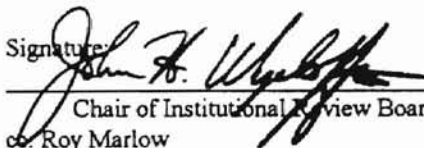
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR  
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE  
SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

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**Comments, Modifications/Conditions for Approval or Disapproval are as follows:**

Signature:

  
Chair of Institutional Review Board  
cc. Roy Marlow

Date: July 3, 1997

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VITA

Roy D. Marlow

Candidate for the Degree of

Master of Science

Thesis: HIGH PERFORMANCE WORK PRACTICES IN SMALL  
MANUFACTURING AND PROCESSING ORGANIZATIONS WHICH  
EXPORT

Major Field: Occupational and Adult Education

Emphasis Area: Human Resource Development

Biographical:

Personal Data: Born in Siloam Springs, Arkansas, On January 2, 1964, the son of Roy Glen and Grace Ann Marlow.

Education: Graduated from Colcord High School, Colcord, Oklahoma in June 1982; received Bachelor of Science degree in Workforce Education and Development from Southern Illinois University at Carbondale, Carbondale, Illinois in August 1994. Completed the requirements for the Master of Science degree, Oklahoma State University in May 1998.

Professional Experience: Enlisted in the United States Navy, August 1984, Electronics Technician First Class Petty Officer, Patrol Wing One Pacific, Electronics Maintenance Supervisor and Facilities Maintenance Manager, March 1986 - July 1990, Fleet Combat Training Center Atlantic, Damneck, Virginia, Training Specialist, July 1990 - December 1992. Employed by Oklahoma State University, Department of Independent and Correspondence Study as a graduate research assistant, October 1994 - September 1995. Employed by Integris Health, Human Resources as a Learning Consultant, September 1995 - Present.