

An Analysis of an Industrial Corporation's Employee
Climate Survey and Job Satisfaction from 1980 to 1984

by

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CHAPTER ONE

INTRODUCTION

The issue of how more effectively to use the human resources which exist in organizations is a continuing concern to corporations interested in maximizing their resources. Today's corporate climate includes changing profit patterns, reductions in employee pay and benefits, layoffs, slowed sales growth, and uncertain times for both management and employees. Successful corporations find ways to excel even in the face of difficult times.

In both good times and poor times the use of survey instruments to assess employee attitudes has been a frequent tool of corporations. These employee surveys have been used to monitor the changes in attitudes which affect the corporation. However, many organizations seem to be more successful at collecting data than they are at using the data or constructing the results in usable formats. This research provides an unusual opportunity to study employee attitude data across five consecutive years from a corporation which was experiencing considerable change in profits, employment,

and benefits. The researcher's involvement was possible because the corporation had collected the employee survey data and now desired to have the results analyzed. The corporation contacted the Department of Communication Studies and the process of developing the research study began. The attraction of this study was that the actual case scenario of the corporation created the potential to study job satisfaction during an unusual corporate situation of change and have the potential for direct application of the results to the organization.

Purpose of the Study

The general purpose of this study is to analyze an industrial corporation's employee climate survey in terms of employee job satisfaction in order to understand the survey and what it reveals about the organization.

Description of the Corporate Setting

This research was so closely identified with a particular corporation that an early description of the corporate setting was necessary in order to provide a clear context for understanding the study and its aims. Therefore, the following description identifies the structure of the corporate sectors, the crisis which

emerged, and the human resource responses of the corporation.

Corporate Sectors

The organization is a \$3 billion a year international corporation structured in three broad product sectors of approximately \$1 billion each in annual sales. The three sectors are: (1) a custom engineered equipment division where heavy equipment for use in energy related industries is custom designed and manufactured for corporate customers; (2) a standard machinery engineering division which includes standard manufactured equipment primarily for the construction trade; and (3) a consumer products/components division which includes items such as safety locks, door hardware, bearings, etc. Most of the operations in this division were acquired as subsidiaries in order to diversify the company during the 1970's.

In all of the sectors there are approximately 34,500 employees world-wide, including 25,000 in the United States. The corporation includes fifty (50) manufacturing plants in the U.S.A., located primarily in the East and South. The employees are predominately non-union (80%) even though many of the plants exist in strong union areas. Although the plant size ranges from 100 to 2800 employees, the average plant employs 400-500

workers.

The three corporate sectors are structured administratively with three or four vice-presidents who have plant managers reporting to them for the operation of individual manufacturing plants. The plant managers in turn have a plant superintendent who directs the operation of the plant through foremen.

Corporate History

A brief, recent history of the corporation is useful in understanding the context and significance of the current study.

According to an interviewed corporate officer (October, 1984), the time prior to the Fall of 1982 could be considered the norm for the corporation and its operation. According to the officer, "from the early 1970's until the Spring of 1982 the corporation, as well as much of American industry, did its best job of going to sleep and getting fat." Productivity of the corporation grew, in value-added terms, at only a 2.2% per year rate from 1976 through 1981. During that time, however, the corporation initiated large increases in fringe benefits and financial rewards and increases. Salaries overall were positioned so that they were between 98% and 110% of the salaries being paid in the location the plant existed, regardless of what the other

local industries were and without respect to salaries paid in the industry by the corporation's competitors.

A Corporate Crisis

In 1981 the corporation boomed and experienced record-breaking sales and earnings. But by March, 1982, the boom was over; and by December, 1982, sales had dropped 30%. Across the board reductions were made in a move to survive. Employment world-wide, which had been 47,000 in December, 1981, plunged to 37,000 in June, 1983, and dropped to 34,500 in October, 1984. In other words, the number of employees had been reduced by 12,500 in less than three years.

May, 1982, marked the beginning of corporate reductions and takebacks. Salary increases for Exempt (professional - managerial) and Non-Exempt* (staff - clerical) were delayed by 6 to 8 months while the percentage was reduced. Hourly factory workers, whose salary increases had averaged 7% to 9%, were dropped to increases of 3% to 5%, and the salary increase interval was extended from 12 to 15 months so as to delay cost increases. Additionally, on October 1, 1983, the medical insurance benefit was reduced substantially, requiring employees to pay up to \$1,200 more per year for medical coverage.

In summary, 1982 marked the end of life as usual

in the corporation. The reduction in personnel and benefits was widespread. However, at that same time an effort was made to begin increasing the non-compensatory rewards where possible.

Human Resource Responses

In 1981 a new corporate chairman convened a task force of top executives to plan for the long term survival and profitability of the organization. The result was a five pronged approach for the corporation, one of which was to stress human motivation and resources.

The goal was to begin a decentralization of management and to move the power down the line so that people in the factories would become involved. Participative management was stressed, and more than 200 quality circles were begun in some 20 plants. Throughout the human resource efforts, worker participation was the focus of the corporation's new emphasis. As preparation for the emphasis on worker participation, management training was given by the corporate staff and through an executive training program designed with Harvard University on "How American Manufacturing is Becoming Competitive in the 1980's." Furthermore, local reward and recognition strategies were encouraged and used in many plant

locations to identify high productivity and accomplishments. A quarterly corporate newsletter identified special achievements and gains in productivity that individuals and work groups achieved.

The organizational climate survey used in this study had already been developed in 1979 and put into use by the corporation to assess satisfaction of employees. As part of its use, local companies identified specific items of concern and attempted to address those obvious concerns through the use of task forces. These employee task forces were established to address the specific concern identified by an item in the survey and to develop specific recommendations for action. The recommendations included the addition of new equipment, the need for training, and the change in procedures or practices.

Additionally, the survey has been used to assess the changing context of corporate realities. Although the corporate purpose of the survey began as a perceived way to avoid unionization, it is now viewed as a tool for improving the corporation and its operation.

Statement of the Problem

The above description identified a corporation experiencing significant changes in a brief period of time. In order to assess how well they were

accomplishing their goal of enhancing the human resources, they chose to assess the corporation's climate with an employee survey.

The practice of using employee surveys to assess organizational developments is a fairly common one. Employees are frequently asked to give their opinions and attitudes concerning a wide variety of organizational topics. However, merely asking for information from employees is no guarantee that useful and positive results will accrue to the organization. Over a period of time, the willingness of employees to respond may diminish if the corporation fails to take direct action on the information obtained.

The concern of this study was to analyze the corporation's survey in terms of job satisfaction and to understand what the survey revealed about the job satisfaction of the organization's employees across time.

At the beginning, very little was known about the relationships among the items in the survey or the underlying factors which existed in the survey. Although the data had been available to the corporation, an analysis of the survey had not been conducted. An exploration of the job satisfaction factor in times of high and low corporate growth was possible because of the particular circumstances of the corporation during

the years from 1980 through 1984. Comparing any changes in the reported levels of job satisfaction during the two distinct periods of growth should be useful for study and application to other organizations experiencing changes in their corporate environment. Furthermore, the analysis of the corporate survey should reveal what factor scores may be useful predictors of job satisfaction. Thus, the understanding and utility of the survey can be enhanced.

Justification for the Study

The justification for doing this study was based on (1) the desire to gain an understanding of an industrial organization's employee attitude survey, (2) the unusual opportunity to discover the changes in employee job satisfaction across time when a period of high corporate growth is compared to a period of low growth, and (3) the potential use these findings may have for the corporation's internal feedback processes.

Understanding the Corporate Attitude Survey

The corporation used in this study had made a corporate commitment in 1982 to strengthen the human resources within the organization. Part of that effort was to use the results of an employee survey instrument which had already been in use to assess the attitudes of

employees on various organizational variables. However, the collection of survey data on 10,133 employees since 1980 had remained relatively unanalyzed through 1984. Although some general consideration of the data had been given, there had been no analysis of the relationships among the key organizational factors and variables revealed in the data. The survey primarily was a collection of past employee attitudes that remained locked within the confines of the pages of the surveys. Questions such as, "Did the survey items contain a more basic structure than just the individual items?" or "Were there relationships among concepts of the survey that provide insight to the organization?" had not been answered. This study was designed to gain an understanding of the survey and what it revealed about the organization.

Changes in Employee Job Satisfaction Across Time

The very nature of an organization includes an element of change as it adjusts to new factors in its environment. The organization of this study is no exception. In fact, this study provides an opportunity to learn if employee job satisfaction changes across time and differs among employee pay classification groups such as the managerial, clerical, and hourly workers. The collection of employee survey data from

1980 through 1984 gives a unique opportunity to study a corporation which experienced great change in its employment levels, sales, profits, and benefits to employees. The two contrasting periods of high growth and low growth provide an opportunity to gain an insight into the job satisfaction in the corporation during distinctly different periods. "Are employees more satisfied under one corporate condition than they are in the other?" "Are there differences in the job satisfaction of employees depending upon the work classification they are in?" These underlying questions can be approached for this organization through this study and should be of interest to the study of organizations.

Potential for Organizational Feedback

Although the development of specific feedback mechanisms is beyond the scope of this study, the development of an understanding of the survey and its revelations about employee job satisfaction provides the foundation for the creation of feedback processes by the organization.

The importance of developing this foundation is based on the significant role which feedback can and does play in the functioning of an organization. Writing about cybernetics, Weiner (1948) originally used

the term "feedback" to refer to the report of output energy that was being returned to the system as input. The key concepts here are identified by the terms positive and negative feedback. Feedback classified as negative feedback denoted input which served a corrective purpose. Negative feedback stabilized the system by correcting the acceleration of the system so that the system would not self-destruct from unchecked pursuit of its goal. On the other hand, positive feedback was considered to be information that does not give corrective signals, thus allowing the system to continue its acceleration.

Although recent behavioral science and psychological perspectives on feedback have moved beyond the simple error correction model of cybernetics (Nadler, 1979), the significance of feedback for effective organizational operation still exists. Bilodeau and Bilodeau (1961) have labeled feedback as the strongest, most important variable controlling performance and learning.

In an extensive review of feedback literature, Downs, Johnson, and Barge (1984) conclude that the study of feedback is basic to research in human communication. Furthermore, they state that the concept of feedback is important to organizational communication for four reasons:

1. Feedback through appraisals has become a legal mandate.
2. Personal feedback is desired by most employees and has a high correlation with job satisfaction.
3. Feedback is considered a most important variable in learning and performance.
4. Feeding information about performance back to individuals and interacting groups is assumed to be a potentially powerful means to enhance organizational effectiveness (Downs, Johnson, & Barge, 1984, p14).

Feedback then, is a key organizational component according to both the traditional cybernetic view and the more recent organizational communication view. Thus, the vast amount of data derived from the corporation's climate survey provides very little useful feedback in an unanalyzed state. If feeding back information to the individuals comprising employee work groups is to be used to enhance effectiveness, then the initial step must be to develop an understanding of the survey and what it reveals about job satisfaction in the organization so that the organization can communicate insights from the data rather than simply collect the data.

The goals were to analyze the survey data so that (a) the major factors of the survey were identified for easier use, (b) the factor score representing job satisfaction was more clearly identified for use and correlation with other factor

scores, (c) the influence of corporate growth on employees' attitudes across time and pay classifications were known, (d) the items and factors which best predicted job satisfaction were identified, and (e) the differences in job satisfaction for each pay classification were discovered. These goals culminated in five specific research questions.

Research Questions

1. What are the basic underlying factors which emerge from the items contained in the corporate climate survey?

The 75 item survey diminishes the ease with which the data can be considered and used. If a more basic structure can be discovered in the survey, the significance of those key factors can be considered and used to more easily study the attitudes of the employees concerning the organization. Further, a distinct factor score for job satisfaction is necessary if it is to be studied across time and pay classifications.

2. Are there significant correlations between the Job Satisfaction Factor Scores and the other factor scores of the corporate climate survey?

It is expected that a distinct factor expressing job satisfaction will emerge. Further, it is important to determine if other factor scores correlate with the

Job Satisfaction Factor Scores so that a more complete understanding can be gained about what the survey reveals. If other factor scores relate to the job satisfaction factor scores, is the relationship a strong one or not? Discovering these relationships can assist in developing a more complete understanding of what the survey reveals.

3a. Do the levels of corporate growth and employee pay classification significantly affect the employee Job Satisfaction Factor Scores?

The distinct periods of growth and decline experienced by the corporation provide, an unusual chance to determine if the change in the corporation had any affect on the job satisfaction of the employees. A type of work folklore would speculate that during bad times employee attitudes and satisfaction also suffer. This question provides an opportunity to discover if that feeling is true. Further, the data is structured so that there are three separate job levels which can be studied to determine if the job satisfaction of an employee is influenced by the level of their job (pay) classification.

3b. Are there significant differences in the Job Satisfaction Factor Scores of the three employee pay classifications?

The three pay classification groups may have

different levels of job satisfaction. If so, are those differences significant? These results may provide additional insight about the organization.

4a. What items in the corporate climate survey are the best predictors of the employee Job Satisfaction Factor Scores?

In order to understand the survey better, the discovery of key items (survey questions) which predict the job satisfaction factor score is useful. With key items identified, greater understanding of the survey and the components of job satisfaction can be developed.

4b. What factor scores in the corporate climate survey are the best predictors of the Job Satisfaction Factor Scores?

Beyond the individual items, are there factors which can strongly predict the Job Satisfaction Factor Scores? With the factor scores identified, this step should offer further assistance in developing an increased understanding of the survey.

5a. Is there a significant difference in the Job Satisfaction Factor Scores of Exempt employees between the years 1980 through 1984?

5b. Is there a significant difference in the Job Satisfaction Factor Scores of Non-Exempt employees between the years 1980 through 1984?

5c. Is there a significant difference in the

Job Satisfaction Factor Scores of Hourly employees between the years 1980 through 1984?

These questions are important to pursue because they permit changes to be studied from year to year and over the total period of the data. Through these questions trends may be discovered in the total organization or within individual classification groups. It is expected that these analyses can provide useful and interesting insights to the changes in job satisfaction across time.

Overview of Methodology

Briefly, the analyses conducted for this study were performed on data collected by the corporation's Human Resource staff from 1980 through 1984. The control procedures for the collection of the data were established by the staff and, according to their records, were consistently administered. The corporation provided the researcher access to the data after it had been collected and entered into a computer data base.

With the goal of understanding the survey and what it revealed about job satisfaction of the employees, the first analysis was a factor analysis of the 75 items in the survey. This was done to identify the basic factor structure in the survey.

The second analysis was the Pearson Correlation among the factor scores of the survey to determine if significant relationships existed among the Job Satisfaction Factor Scores and other factor scores.

The third test was an analysis of variance to determine if the levels of corporate growth, high and low, and pay classification level had any effect on the Job Satisfaction Factor Scores.

The fourth procedure sought to identify the best predictors of the Job Satisfaction Factor Scores through a stepwise multiple regression.

The fifth analysis used an analysis of variance and a protected t-test to determine if there were differences in the Job Satisfaction Factor Scores in a pay classification group from year to year.

Limitations of the Study

The limitations of this study should be considered before proceeding. Although the methodology and analyses were designed to control for as many extraneous variables as possible, the following limitations identify concerns which should be considered in further study of the results.

1. Due to the fact that a factor analysis generates factors specific to the loadings of the items

in current sample, it should not be assumed that the factor structure will remain the same over time as new survey years are entered into the data base. A continued process of factor analysis is need to ensure the distinction of items within factors. Items which comprize a factor may not remain consistent and therefore make future use of the factors less reliable for comparison and study.

2. The correlation was calculated using factor scores which were composite estimates of the factor based on the most important subset of items which loaded on the individual factors. Therefore, the factor scores are not technically full factor scores but composite estimates.

3. The desire to consider the two distinct periods of corporate growth also creates a limitation of the study. Although the corporation's own definitions distinguish between the two periods based on specific years, it is unlikely that the breaks between the periods are precise and quick across all companies simultaneously. Since changes in growth or decline occur over a period of time, the arbitrary breaking into two periods fails to account for the gradual transitions that may have occurred.

4. The design of the study relies on what the employees have reported as their job satisfaction

through a factored cluster of items from the survey. As a result, the researcher had no control in establishing the definition of job satisfaction to be used in the study.

5. The kinds and extent of the human resource measures which were instituted by the corporation were not universally applied across all of the companies in the survey. Some quality circle programs emerged while other groups used recognition incentives or other non-monetary rewards. Standardization and specification of the human resource measures instituted would reduce this limitation.

6. The researcher had no control in establishing the procedures to administer the survey or collect the data. The research is dependent upon a pre-designed corporated survey which was administered by corporate personnel.

Overview of Subsequent Chapters

The research project explored the job satisfaction relationships of a corporation's employee climate survey. The research questions above outline the consideration of concerns over time and through pay classifications. The foundation of this study was found in previous work in job satisfaction, climate studies,

feedback, and attitude surveys. Thus, Chapter Two provides a review of related literature in an attempt to develop an understanding of the context of this study.

The Chapter Three explains the procedures and methodology of the study. The chapter describes the subjects, the survey and its administration, and the methods of analysis used in the research.

Chapter Four presents the results of the statistical analyses through the use of tables and charts.

Chapter Five is a discussion of the conclusions and recommendations which are drawn from the results of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to provide a review of relevant literature which addresses the central concerns of this study. The review reports current research on (a) the use of attitude surveys in research, (b) feedback, (c) job satisfaction, and (d) organizational climate. From the review, relevant definitions and conclusions are drawn which served as the basis for the study.

Attitude Surveys

One of the most important, if not the primary, methods of gathering information about the internal state of organizations has been through the use of attitude surveys. Their use has become popular because of the relative ease with which information can be gathered and analyzed on a broad range of attitudes and feelings potentially affecting the organization. On the other hand, the frequency of their use has generated some questions about the ability of surveys to provide

accurate diagnoses of organizations. The purpose of this section is to identify some assumptions underlying organizational attitude surveys and to discuss aspects of the strengths and weaknesses of using surveys to predict employee behavior within the organization.

Human interactions are continually filled with assessments and evaluations of other people and things. Constantly the values, beliefs, and feelings which people hold are reflected in their attitudes toward others. However, in dealing with large numbers of people, it becomes increasingly difficult to rely on obtaining direct information about the attitudes of people on the basis of personal contacts. Thus, "attitude surveys are basically a systematic way of finding out what people are thinking and feeling" (Harper & Reeves, 1977, p. 240). Therefore, the use of attitude surveys has found a natural place in the study of groups of people working in organizations because large amounts of information can be gathered quickly to report the attitudes held by a sample of the group.

Preliminary to a discussion of the use of attitude surveys is the definition of an attitude. In summarizing a number of early works, Allport (1935) defines an attitude as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's

response to all objects and situations with which it is related." Katz (1960, p.14) states that "an attitude is the predisposition of the individual to evaluate some symbol or object or aspect of his world in a favourable or unfavourable manner." In other words, an attitude is an involving concept for the individual. Triandis (1971, p.2) suggests that an attitude has a cognitive, affective, and a behavioral component and can be defined as "an idea charged with emotion which predisposes a class of actions to a particular class of social situations."

Attitudes, as seen above, do not exist in a vacuum but rather in the dynamics of human interaction with life activities. In every situation the attitudes of an individual are related to objects, persons, or ideas. There is, however, an additional element which is important. Attitudes are also a "learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6). The important element here is that the attitude is learned. Individuals learn attitudes toward a specific object from their interactions with others and their cognitive processes. As a result of that learning they act favorably or unfavorably toward the object in a manner consistent with the attitude being held toward the object. In

other words, an attitude (a) is a psychological relationship between individuals and the object, (b) has been learned through life experiences, and, as such, (c) influences the individual to act in certain ways toward that object.

The relationship between an individual's attitude and the behavior which is taken toward an object, person, or concept is a fundamental issue in the use of attitude surveys in organizations. The important issue is not whether a behavior will be taken by an individual, but rather, can the specific behavior be predicted from knowing the individual's attitude toward the object? According to Harper and Reeves (1977), the assumption in attitude theory is that if all things are equal, the holding of a particular attitude will lead to a specific behavior which is consistent with the attitude. However, few things in real life are consistently equal, and many factors emerge to influence individuals. Lorenzi (1984, p. 9) asks, "Do attitudes completely determine behavior? No! There is an imperfect link between attitudes and behavior...(because) attitudes are expressions of intended behavior, not behaviors." The point Lorenzi makes is important. Although situational variables (Ajzen & Fishbein, 1973; Schofield, 1975) and personality factors (Snyder, 1979; Zanna, Olson, &

Fazio, 1980) have been shown to be determinants of the consistency between attitudes and behavior, it is apparently not safe to assume that an attitude reported on a survey will result in a particular, predicted behavior. However, even with the limitations, Lorenzi (1984) contends that work attitudes are important because they are affected by intentions, obstacles, learning, and salience. Through the use of attitude surveys much can be learned about the individual in the work setting, particularly if attitudes are assessed over a period of time. For example, as management is able to identify and remove undesirable obstacles, evidence of changes in behavior and attitudes may be displayed through surveys. Furthermore, the organization may attempt to train individuals or to introduce to them new information which increases their understanding and knowledge of the organization. These information attempts could be reflected in a survey by changes in attitudes as individuals develop new attitudes toward certain elements of their work setting. Finally, through a survey, managers can identify the attitudes which are salient to the individuals in the organization. By concentrating on those attitudes which are important, the organization may significantly affect employee behavior which in turn, is beneficial to the organization. Thus, salient attitudes which influence

satisfaction and productivity would be of particular importance for the organization to identify and address.

However, researchers have expressed two major concerns over the ability of attitudinal measures to be effective in predicting behavior. First, Lorenzi (1984, p.23) indicates that research over the past fifty years has caused some researchers to feel that "there is little evidence to support the postulated existence of stable underlying attitudes within the individual which influences...his actions." The concern exists partially because attitudes, with their intrapersonal nature, are difficult to accurately assess when it is the behavior rather than the attitude which is obvious to the observer. Since attitude and behavior seem to be mediated through intention, the behavior which is displayed may not always accurately reflect the attitude which is held by the individual. Conversely, the attitude of the individual may spark an intention to behave which is somehow blocked or limited by an obstacle, thus prohibiting a direct relationship between attitude and behavior (Lorenzi, 1984; Fishbein & Ajzen, 1975).

Lorenzi (1984) feels that to be an effective predictor of behavior, the measurement of the attitude must specify the (a) behavioral target, e.g., work; (b) action, e.g., overtime work; (c) context, e.g., working

alone; and (d) the time, e.g., tonight (p. 22). Lorenzi further identifies the condition under which attitudinal predictors and the behavioral criteria are linked by citing Ajzen and Fishbein who state, "It is shown that people's actions are found to be systematically related to their attitudes when the nature of the attitudinal predictors and behavioral criteria are taken into consideration." Thus, "to predict behavior from attitude, the investigator has to ensure high correspondence between at least the target and action elements of the measures he employs." Ajzen and Fishbein suggest that knowledge of at least the target and the action can produce useful and effective predictions of behaviors for use in management settings (Lorenzi, 1984, p. 23-24).

Perhaps one potential weakness of attitude measures is that they tend too often to focus on a "target" idea or concept without more fully involving an "action" phase to help the individual focus his response on action that would be taken. Therefore, a minimal goal in the use of attitude surveys would be to ensure that the survey items are constructed to assess the attitude through the behavior the individual would take rather than merely replying to a concept or idea. In this way the attitude tied to behavior would have a greater likelihood of reflecting actual attitudes held

by the individual.

A second concern about attitude surveys is that the answers given by individuals may not reflect their true feelings because people are inhibited about telling the truth or because they do not care to cooperate. Also, due to the nature of attitudes, if the reasons for feeling as he does are not consciously held by the individual, it may be particularly difficult for the individual to identify the attitude on a survey.

Although this concern is legitimate, Harper and Reeves (1977, p. 248-249) indicate that these fears are not founded.

Work, even if not enjoyed, is normally, a matter of central concern to people, and is something about which people have very conscious feelings. Telling others about their work is an activity which most people seem to enjoy, and provided a sufficient level of trust is established, employees at all levels of the organization will normally be interested in and cooperate with a survey.

The assumption in using attitude surveys to study organizations is that the collective reflections of the individuals in the group will provide a systematic way to look at the salient concerns of the group. Although this method cannot presume to predict behaviors from reported attitudes consistently, it can provide a method to monitor, over time, the changes which occur in the reported attitudes of organizational

members. Striving to insure that survey items involve more than just the target object would strengthen the use of surveys as predictors of behavior. Furthermore, Carlsmith, Ellsworth, and Aronson (1976) urge that whenever possible, verbal measures, such as attitude surveys, be supplemented with behavioral measures to verify the attitudinal intent. Then the relationship between the attitude and the behavior can be more clearly displayed.

In conclusion, attitude surveys are a distinct part of organizational study. Their use should be approached with reasonable caution, and when used to predict behavior, with guarded application. The benefits of surveys may exist most strongly over time as the organization views the possible impact of changes as they are reflected in the reported attitudes of employees. Surveys used to develop new or increased understanding among organizational members may enhance the potential for new "learned" attitudes to emerge and be reported over time.

Feedback

Feedback is information about the actual performance of a system which is used to control the future actions of that system. Weiner, (1948) through his cybernetic work, has generally been credited with introducing the term feedback into popular usage. Nadler (1979, p. 310) states that, "a feedback loop is an information channel which translates the measure of the output of a system into a signal which can thereupon control the input or the transformation process". Ilgen, Fisher, and Taylor (1979, p. 350) conceive of feedback as a "special case of the general communication process in which some sender (a source) conveys a message to a recipient. In the case of feedback, the message comprises information about the recipient." Thus, feedback is a corrective message to the system which affects the future actions and performance of the system in order to maintain the system and its effectiveness. The "system" may be a machine, an individual, a group, a complex social system, or an organization, but the key ingredient is that its output serves to return information back to the system so that future actions will be affected.

The nature of feedback is generally characterized by the elements of (a) a source, (b)

messages, (c) a recipient, and (d) the patterns of feedback (Downs, Johnson, and Barge, 1984; Ilgen, Fisher, and Taylor, 1979). Although the uses of feedback are identified by Downs, et al. (1984, p. 15) as "(1) providing information or description, (2) making evaluations, (3) enhancing motivation, and (4) giving direction", Ilgen, et al. (1979) concludes that the elements of the feedback are critical if the feedback is to have an impact upon individuals. The first stage in the feedback process is the perception of the feedback by the recipient. In this stage the source with its credibility and closeness, along with the timing, frequency, and sign (positive or negative) of the message, influence the perception of feedback by the recipient. The second stage is the acceptance of the feedback and is based on whether the recipient believes the feedback is an accurate portrayal of his performance. This stage is influenced by the recipient's relationship with the source, the message sign and consistency, and the internal beliefs and concepts the recipient holds about himself. Thus, feedback which is not accepted, or which is attributed as inaccurate, will not be able to influence the individual and his behavior. Beyond acceptance is the recipient's desire to respond--the third stage of the feedback process. The question is, will the individual

respond in line with the feedback that has been given? Here the key factors for the feedback process are the power of the source over the recipient and the perceived effects on the recipient if he does not respond. Finally, the fourth stage is the individual's intended response and the desire to take action toward goals within the system. Ultimately, the action of the individual in response to the feedback is the key evaluation of the success of the feedback process.

The effects of feedback have been studied in many different contexts in the literature. Fisher (1979) and Ilgen (1980) found that feedback to low performers tended to be more distorted, by making it more positive, than feedback to high performers. Perception of the self as influenced by feedback was studied by Wilson (1981) and resulted in findings which indicated that teacher self-perceptions changed as a result of the feedback they received. In another perception study, Vandaveer (1981) examined the effects of feedback on the recipient's perception of accuracy, acceptance of feedback and intentions to respond. The findings indicated that effective predictors of a recipient's reactions to the feedback were the source's personal characteristics, the personal characteristics of the recipient, and the characteristics of the message in terms of frequency and specificity. Beyond the

effects of perceptions, feedback has an effect upon performance. In their extensive review of the literature, Downs, Johnson, and Barge (1984, p. 15) state, "There are many variations in the results of feedback studies, but the predominant conclusion substantiated by all of them is feedback does indeed affect performance...more effective performance is always associated with feedback." In addition, feedback seems to enhance training (Brown, 1980; Komaki, Heinzmann, & Lawson, 1980) and, as a result, influence the improved performance of individuals. Further, feedback was found to be essential in the development of trust and confidence between employees and management in twenty-six U.S. companies (Foulkes, 1980). However, Greller (1980) reported that supervisors consistently underestimated the value of the task feedback and the feedback from co-workers' comments while overestimating the importance of feedback from the boss and the final results. Finally, Bigly (1981) found, after studying the effects of four different types of feedback, that under all conditions feedback improved performance and resulted in employee satisfaction which was either the same or better than before the feedback.

In summary, the effects of feedback have proven to be extremely positive for improving the performance, training, trust, perception, and even satisfaction of

individuals in organizations. However, the importance placed on feedback by the recipient may vary within the individual and may influence the potential use of the feedback by the individual.

Feedback, a Distinction

While Annett (1969) concludes that there is extensive research on feedback as it relates to individual behavior, Nadler (1979, p. 310) states that the "research on feedback and group functioning is extremely fragmented..." The distinction in feedback is between whether feedback should be given to an individual or to the unit--the group. The bulk of the research and the positive results of feedback have generally been done in the context of giving feedback to individuals in organizations. However, a concern of growing interest is the feedback which is given to the group as a whole. Two questions which arise in the feedback discussion are the following: Is feedback in the group setting any different from feedback to the individual? Should the same positive results found in individual feedback be expected from group feedback? Nadler (1979), who has done the most extensive review of group feedback literature, identifies two factors which reflect a difference between individual and group feedback. Nadler (1979, p. 312) states, "Feedback

information received by individuals in a group may be very different than feedback received individually because that information may be confounded by the actions of other group members." In short, he believes that an individual may more easily believe that the feedback is directed at someone else in the group and fail to interpret the feedback as specific to him, thus rendering it useless. Second, "even if the data can be interpreted and understood, the individual is limited by the inherent nature of the group in his or her ability to act on that information." Here the concern is that the individual may have such a small role in the total group functioning that even if the feedback is comprehended by the individual, his implementation of the feedback in the group may have little or no impact on the group functioning. Essentially, Nadler has offered three classifications of feedback: individual feedback, which is directed to an individual about his performance; individual feedback in groups, which is feedback to the individual about behavior which has occurred in the group setting; and group feedback, which is feedback reflecting the functioning of the group as a whole.

The third type, group feedback is of particular concern to the present study. The employee survey results and interpretation are rather unique feedback

factors. While the survey is feedback from the employees to the management and supervision of the organization, the total group results are intended to be feedback to the employees about the functioning of the corporation. If the group feedback from the survey is to be used, it should have some foundation of probable effectiveness in enhancing group performance. Nadler (1979, p. 313) cites research by Hackman and Morris (1975) which concludes that group feedback results in "motivational effects (changes in group member motivation), or cueing effects (changes in group performance strategies)." Kim and Hamner (1976) found that feedback to industrial work groups enhanced performance when compared to groups who received no feedback. Further, the cueing effects of feedback were found to enhance non-performance factors such as organizational climate and group attitudes while leading to more effective individual and group problem solving (Nadler, 1979, p. 324). However, Nadler also indicates that sometimes the individual feedback is singularly more effective than the group feedback. He concludes that "where the individual work roles are not interdependent group feedback may be less effective." The role of interdependence appears to strengthen the need for the group to function together and therefore to give attention to the feedback which comes to the group.

Although the group may ignore the feedback or more easily misunderstand its intent and content, Nadler (1979, p. 332) concludes that "feedback itself may be important as a means of initiating these processes (of motivation and group performance)." In summary, the process of giving feedback to the group about information collected on the group should have the potential to enhance the group's motivation and the performance. Although individual feedback related to performance should not be overlooked as a resource to the organization, the broader type of feedback, group feedback, may be valuable in beginning the process of working together in a problem solving context. Walter (1975) concludes that groups need help in using feedback to change performance and that the value of feedback may be augmented by modeling. Thus, management could model the use of feedback from the employees by making changes to improve the organization and at the same time assist the employees in understanding the feedback as it relates to their work climate and performance.

The above review of feedback suggests that the information collected through the employee climate survey can serve as a tool which can be used by management to initiate a dialogue with employee groups. These feedback sessions should be expected to increase the understanding of the employees about the

organizational climate and their perceptions of it. The ultimate goal of enhancing satisfaction and performance should result from these efforts to increase the flow of feedback to the employee work groups who have participated in the survey.

Job Satisfaction

The interest in job satisfaction in organizational settings has not been a recent phenomenon. In fact, Hoppock's monograph in 1935, entitled Job Satisfaction, began what has become a major interest for managers and workers alike in many different work settings. Vroom (1964), nearly thirty years after Hoppock's monograph, concluded that job satisfaction would become an increasingly important organizational goal as individuals, once greatly influenced by the Protestant Work Ethic, became increasingly concerned with the quality of life and their own values and goals (p.80).

Job satisfaction has become an often used, widely researched concept in the social sciences. Locke (1969), more than fifteen years ago, estimated that over 4000 articles had been published on the subject. Since that time, work in relating job satisfaction to

additional areas of concern such as communication, particularly organizational communication, has continued the scholarly interest and research on the topic of job satisfaction.

A common theme in the literature about job satisfaction is the difficulty of defining it. A variety of perspectives, definitions, and theories has been used; however, a single definition for job satisfaction has not yet emerged. In addition, a variety of factors which are hypothesized to relate to, or be a determinant of job satisfaction are identified in the literature. Finally, with the various definitions used in the research, a variety of methods to assess job satisfaction has also resulted.

The purpose of this section of the literature review is to identify the various definitional positions that have been taken in job satisfaction research, to review the factors and determinants of job satisfaction, and to identify some methods engaged to assess job satisfaction.

Defining Job Satisfaction

Although a single definition may be advantageous in order to create a certain neatness to the discussion of job satisfaction, the variety of perspectives and conceptual frameworks used to study job satisfaction has

provided a richness of results to be considered. A consideration of a definition of job satisfaction required a look at various conceptual positions which have been used to study job satisfaction. The following section identifies some major perspectives used to build a working definition of job satisfaction in the literature.

Need Fulfillment

Hoppock (1935) identified an early conception of job satisfaction, the need fulfillment theory, when he stated that "any combination of psychological, physiological, and environmental circumstances that cause a person truthfully to say, 'I am satisfied with my job,'" (p.51) is a concern for job satisfaction measurement. Downs (1977) states that need fulfillment theory is an "attempt to explain satisfaction in terms of the extent to which basic needs or motives are met" (p.364). The core of the theory as it relates to job satisfaction is the assumption that the same needs that exist elsewhere will exist at work, and as a result, work is capable of satisfying the needs of the individual. An additional view of need fulfillment is proposed by Wanous and Lawler (1972) in their review of definitions of job satisfaction. They propose that Porter (1961) and Alderfer (1969) used an

operationalized job satisfaction as being the sum of goal attainment across job facets. This definition asks what "is now" in relation to the worker's needs being met by the various facets of his job. In their studies of work adjustment, Loquist and Davis (1969), define job satisfaction in terms of need fulfillment as a "correspondence between the reinforcer system of the work environment and the individual's needs..."(p.53). Chusmir (1983) assumes that McClelland's needs of affiliation, achievement, and power can be matched to individuals to predict job satisfaction in various jobs in the newspaper industry. His assumption is that industries, like others, have jobs which will meet some person's needs differently than another's. Thus, the conception of job satisfaction in terms of need fulfillment has been defined as, "I am satisfied with my job because my needs are sufficiently met through it."

Discrepancy Theory

Another perspective is based on discrepancy theory. According to Porter (1961), job satisfaction is the difference between feelings of how much satisfaction there is now and how much there should be. Locke (1969) also supports the discrepancy definition by his belief that only unfilled desires can cause dissatisfaction and that satisfaction is the result of the match between the

way things are now and the way individuals would like things to be. Downs (1977) maintains that with discrepancy theories the degree of satisfaction is the "difference between the outcomes which a person actually receives and those outcomes which he feels that he should receive or those which he expected to receive" (p.364). Swan (1975) indicates that as the worker's job expectations move closer to what is experienced, job satisfaction increases. Here again, the closing of the discrepancy between what is and what should be is a key issue in creating a satisfied individual. Job satisfaction is created in this framework by the organization and the individual working to match the understanding and expectations of the individual with the goals, demands, and outcomes of the organization. Feedback is a useful, perhaps essential, process for the organization and its management to use with employees to reduce the discrepancy. For example, Falcione (1974) found that feedback permissiveness in an organization was significantly correlated to satisfaction. He was able to identify nine specific behaviors which could be taken by superiors to enhance employee-manager feedback and ultimately, satisfaction. Thus, the reduction of the discrepancy which an individual experiences because of improved feedback may be a key factor in the development of employee job satisfaction.

Herzberg's Two-Factor Theory

An approach that has received considerable attention is Herzberg's two-factor theory of job satisfaction. The theory originated with a study by Herzberg, Mausner, and Snyderman (1959) in which they interviewed subjects to learn of critical incidents which caused them to feel exceptionally good or bad about their jobs. These critical incidents were then classified into two categories: intrinsic (good critical incidents) and extrinsic (bad critical incidents) aspects of the job. Essentially, Herzberg's position was that the primary determinants of job satisfaction were the intrinsic aspects of the job such as the work itself or the achievement and recognition of the job. Conversely, the factors which contributed to job dissatisfaction were the extrinsic aspects of the job such as company policy, salary, and interpersonal relations with other workers.

Downs (1977) states that in the 1970's, Herzberg's two-factor approach was the most widely used treatment of satisfaction. In an extensive review of the uses of the two-factor theory, King (1970) proposes a clarification of the theory by identifying five distinct forms that have developed. King's point is that since no explicit statement of the theory exists,

various forms have developed in the research and have led to controversy between critics and supporters of the theory. The critics are perhaps adequately represented by Dunnette, Campbell, and Hankel's (1967) statement that "the two-factor theory is shackled to the storytelling method, and the theory's proponents are now more concerned with the game of protecting and nurturing this pet theory than in advancing knowledge about job satisfaction" (p. 148). Although their comment is a stinging criticism of Herzberg's critical incident method, Dunnette, et al. attempt to confirm the theory by testing the taxonomy with a Q-sort method. However, Dunnette's findings failed to confirm the two-factor approach as an "effective avenue for understanding job satisfaction" (p. 169). The results of other studies (Ewen, et al, 1966; Halprin, 1965; & Burke, 1966) also failed to confirm the theory when methods other than the critical incident were used. Although the approach has both critics and supporters, Herzberg's two-factor theory remains a factor in the conceptual framework surrounding job satisfaction. Its weakness appears to lie more in the critical incident methodology and the simplicity of its causal definition than in the scope of the applicable factors which influence job satisfaction. The original ten factors identified by Herzberg perhaps indicate a broader nature to job satisfaction than the

final two-factor theory would demonstrate. Job satisfaction studies, according to Downs (1977), "consistently demonstrate a multi-dimensional notion of job satisfaction" (p. 365) even though the specific factors vary from study to study. In the final analysis, Herzberg's two factors may simply not account for the breadth of factors which influence job satisfaction.

Job Facet Satisfaction

Wanous and Lawler (1972) caution that one should keep in mind the distinction between a rating of overall job satisfaction and the satisfaction that a person has with a particular facet of the job. Job satisfaction in this case is derived through defining which particular facets will be measured, such as different needs, pay, promotion, or training, and then measuring the employee's satisfaction with those particular facets. Then, overall job satisfaction is considered to be the sum of those facets of satisfaction with the job. Ewen (1967) and Schaffer (1953) approached job satisfaction in this manner and correlated scores on measures of job facet satisfaction with job satisfaction instruments such as Brayfield & Rothe's Index of Job Satisfaction. The results showed a positive relationship, leading to the conclusion that overall job satisfaction is the sum

of the satisfaction with the facets of the job. A further aspect of the summing process is found in studies which try to account for the differences in importance which people place on different facets of the job. In these studies (Ewen, 1967; Mikes & Hulin, 1968; Blood, 1971) a weighted job facet satisfaction score is combined with other weighted scores to give a summed, overall job satisfaction measure.

Wanous and Lawler (1972) caution that the importance ratings, as a measure of effect, can have shortcomings because they do not contain a directional component. As such, a high score would indicate a strong effect, but it does not indicate whether the direction of the effect is positive or negative. This weakness may be part of the reason that few studies attempt to overtly take this approach.

Although few studies take this approach, the distinction between the particular facets of the job which bring satisfaction and the overall affect of the job is an important separation to consider. The potential for a single aspect of a job to be significantly important so as to influence a person to evaluate the total job satisfaction as negative or as positive is an area for investigation that may reveal interesting results.

Value Theory

Locke (1969) defines job satisfaction as the "pleasureable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job value (p.316). In offering this definition Locke seeks to distinguish his position from that of a discrepancy model. Locke believes that a discrepancy, which is linked to an expectation and to an event, relates to job satisfaction differently than a value does. For Locke, what is expected may not be what is wanted, and what is valued may not be what is expected. A value, according to Locke, "is that which a man actually seeks to gain and/or keep or considers beneficial. A value presupposes an awareness at some level, of the object or condition sought" (p.320). It is a person's values that regulate the actions and emotional responses which are taken by an individual.

Rand (in Locke, p.315) states that a "value is that which one acts to gain or keep." It is something which is beneficial to the welfare of the individual. For Locke, job satisfaction and dissatisfaction are complex emotional responses to the job by the individual. The benefit which the individual achieves is displayed through the emotions of the individual. These emotional responses basically involve the responses of pleasure and displeasure. Since pleasure is the

consequence of achieving a perceived value, job satisfaction results when the individual achieves a value through his job. According to Locke, the benefit of considering values is that it gives an account of what is important to the individual in the long run. Locke concludes that a measurement of value can be correlated to job satisfaction and as such, values can be used to predict job satisfaction among employees.

Phillips (1983) studied job satisfaction using the value approach of Locke concluding that "value theory is uniquely adept at addressing job satisfaction from the individual's frame of reference rather than from general assumptions regarding what is satisfying" (p. 56). The advantage of value theory is that the factor affecting job satisfaction is the relationship between the individual's values and the perceived way in which the job situation fulfills those values. The causes of job satisfaction exist in the relationship between the job and the individual rather than in one or the other. Phillips found this to be the case in his study of vocational rehabilitation directors. He concluded that job satisfaction was a highly complex individual variable that changes from person to person. Thus, there are individual values and differences which affect an employee's opinion of his job satisfaction.

Summary of Definitions

In addition to the definitions above, some studies (Prybil, 1973; Hunt 1983; Carrell, 1974) proceed to deal with job satisfaction without actually offering a definition. Job satisfaction is used as a variable in the study and is operationally defined by the use of a particular measurement instrument that is apparently assumed to be sufficient. For example, Richmond, McCroskey, and Davis (1982) study the differences among employees, management communication style, and employee satisfaction. However, beyond the operationalization of the concept through the instrument, they only refer to assumptions of factors related to job satisfaction.

To summarize the definitions of job satisfaction in communication research is to conclude that the concept is in fact difficult to singularly define. That difficulty however, is not sufficient cause to avoid an attempt to clarify the concept as it is believed to be expressed in a particular study.

Job satisfaction is a multi-dimensional concept which develops in the interaction between the individual and the work climate which exists for that individual. Although particular dimensions of the job or climate may be more significant to the individual, the individual ultimately responds to the job as a whole in making conclusions as to the level of satisfaction derived from

the work setting. Job satisfaction is an internal response of the individual to the multiple factors existing within the self and the work climate.

Factors and Determinants of Job Satisfaction

The interest in job satisfaction has resulted in attempts to relate it to many different factors within the work setting as well as to attempt to identify the various determinants of job satisfaction. The purpose of this section is to identify the scope and variety of variables which are linked to the study of job satisfaction. Factors which researchers relate to and attempt to correlate to job satisfaction are identified as well as the variables which are assumed to be determinants of job satisfaction.

Job satisfaction has been a significant concern for researchers and for organizations and their management for more than fifty years. The underlying assumption of this interest appears to be the belief that employees who are satisfied will also perform better in other areas of their work life. This assumption is the basis for studies which seek to correlate job satisfaction and another factor within the organization.

A chief concern of job satisfaction research has

been to determine if there is a correlation between job satisfaction and productivity. The feeling that satisfied or happy people are more productive seems like a reasonable assumption to make, especially from a human relations perspective. However, the correlations between productivity and job satisfaction have been mixed at best. Some researchers (King, 1970; Alexander & Camden, 1981; White & Mitchell, 1979) have indicated some positive relationship between job satisfaction and the level of productivity while others (Brayfield & Crockett, 1955; Vroom, 1964;) have failed to find evidence of the link. Downs (1977) states that the "assumption has now been discredited because no direct relationship has been found to exist between productivity and satisfaction" (p.367). Richmond, McCroskey, and Davis (1982) are slightly more generous in concluding that, at best, the research "may permit us to conclude that employee satisfaction may increase productivity or job performance under some circumstances in some types of organizations" (p.170).

A slightly different approach to job satisfaction and work is the relationship to job performance. Locke (1970), Sutermeister (1971), and Lawler and Porter (1967) all showed a link between job satisfaction and performance. However, rather than finding that job satisfaction improved performance, they

each concluded that performance is a cause of satisfaction among employees. Vroom (1964) reviewed studies focusing on correlations between job satisfaction and performance and found positive, although sometimes low, correlations between measures of the two factors. However, Prybil (1973) failed to find a significant correlation between the job satisfaction of library employees and the ratings of their job performance. Wanous (1974) in a causal-correlational analysis of job satisfaction and performance concluded that there "probably is no single 'correct' relationship between satisfaction and performance" (p. 143). His conclusion was that additional research into the relationship of performance and satisfaction should be conducted.

Job satisfaction has been studied in order to test its relationship to communication. One aspect of that, the relationship between communication apprehension and job satisfaction, was studied (Mathews, 1983; Richmond, et al., 1982) and although the relationship between the two variables was positive, it failed to show a significant effect. Other work by Downs (1977) has pointed out that the treatment of satisfaction as an End Result variable by Likert has led to the examination of the relationship between communication and satisfaction to the extent that a

construct called communication satisfaction has been developed. In another communicative link, Rings, Stinson, & Johnson (1979) explored the relationship between communicative behaviors associated with role stress and satisfaction. Their findings suggest that the more the superior initiates communication, the lower the role ambiguity and the higher the job satisfaction is of the subordinate. This would support the conclusions of Falcione (1976) that communication, in terms of feedback, was correlated to satisfaction of employees within an organization. These results tend to indicate that the relationship between satisfaction and communication is a much stronger one than the relationship of satisfaction to productivity or performance. Improving organizational communication does appear to be an important element in the development of job satisfaction.

Job satisfaction has been related to many variables in the literature. Organizational climate and job satisfaction have been considered as distinct variables related to each other (Muchinsky, 1977; Applbaum & Anatol, 1979; Falcione, 1974; Schneider & Snyder, 1975) in research or as a theorized "fuzzy" duplication of each other (James & Jones, 1974). Job satisfaction has been shown to be related to lower absenteeism and to a reduced rate of turnover (Baum &

Youngblod, 1975; Day & Hamblin, 1964; Hackman & Lawler, 1971; Lawler & Porter, 1967). Greene (1973) found that merit pay was a cause of job satisfaction even though it was not a source of improved performance. Swan (1975) found that job satisfaction was significantly related to goal clarity among salespersons. When they felt clear about how well they had done in the opinion of their superior, they showed greater satisfaction. Other characteristics that have been related to job satisfaction are demographics such as age, education, and environment (Carrell, 1974) and rank and length of service (Porter & Mitchell, 1967; Weaver, 1980).

In the final analysis, job satisfaction has been shown to have some relationship to a number of different variables. Although the early hope of finding a tie between satisfaction and productivity has not been found, the effect of job performance and communication feedback on job satisfaction has indicated some areas that can enhance the individual's satisfaction. The interest in job satisfaction appears to be one of those issues that will not die. Perhaps Downs' (1977) statement that "today job satisfaction is being treated as the 'right' of the worker" (p. 367) is the perspective with which organizations are proceeding. In the long run of corporate experiences perhaps the more satisfied individual will benefit the organization by

their propensity to remain and to contribute to the organization. When given the choice, corporations may prefer satisfied rather than dissatisfied employees. Thus finding the determinants and correlates of job satisfaction should continue to be a concern to researchers in the future as it has been in the past.

Measures of Job Satisfaction

The research conducted into job satisfaction has relied greatly upon the use of questionnaires of various forms to operationalize and measure the concept of job satisfaction. The general approach and assumption has been that job satisfaction could be measured by assessing the individual's attitude toward his work and work setting. Thus the goal has been to develop scales which measure the breadth of dimensions in the job setting which are believed to impact job satisfaction.

In some early work on developing a measurement of job satisfaction, Brayfield and Rothe (1951) identified seven desirable attributes of an attitude scale designed to provide a useful index of job satisfaction. The attributes are:

1. It should give an index to "over-all" job satisfaction rather than to specific aspects of the job situation.

2. It should be applicable to a wide variety of jobs.
3. It should be sensitive to variations in attitude.
4. The items should be of such a nature that the scale would evoke cooperation from both management and employees.
5. It should yield a reliable index.
6. It should yield a valid index.
7. It should be brief and easily scored.
(p.307)

Brayfield and Rothe developed a questionnaire with 18 Likert-like items on it as an Index of Job Satisfaction. In addition to their work, the scale has been used by researchers (Rings, Stinson, & Johnson, 1979; Carrell & Elbert, 1974) to measure job satisfaction in various work settings.

A frequently used instrument (Mathews, 1983; Swan, 1975; Richmond, Wagner, & McCroskey, 1983; Richmond, McCroskey, & Davis, 1982; Wanous, 1974) is the Job Description Index (JDI) developed by Smith, Kendell, and Hullin (1969). The JDI covers the five different job factors of work, pay, promotion, supervision, and co-workers by presenting a series of statements about the job in each of the five areas. The JDI contains between nine and eighteen statements per area and is answered by the respondent indicating agreement or

disagreement with the statement. The index can be used to provide an overall measure of job satisfaction, or an individual factor may be used to measure a particular aspect of the scale as in a job facet study.

Another scale that has found use (Phillips, 1983; Wanous, 1974) is the Minnesota Satisfaction Questionnaire (MSQ). The MSQ is available in both a short form and a long form. The short form appears to be more widely used and consists of twenty items ranked on a five point, Likert-like scale. The scale yields scores for (a) intrinsic satisfaction, (b) extrinsic satisfaction, and (c) general satisfaction--a combination of both the intrinsic and extrinsic factors.

A technique used by Herzberg (1959) and others who have studied his Two-factor approach to job satisfaction has made use of the critical incident to identify events which were satisfying for the individual. In addition to this approach, others have developed instruments for their own studies. Bullock (in Greene, 1973) developed a ten item scale to assess specific factors and an overall satisfaction score. Prybil (1973) used a modified version of the Porter Management Position Questionnaire to assess six characteristics of the employee's job satisfaction. Hunt (1983) used an instrument developed by King in 1960 entitled "About Your Company." The King instrument

measures the factors of general satisfaction, self improvement, and personal rights in a yes or no response format. Wanous and Lawler (1972) developed a job satisfaction questionnaire of their own which asked individuals to rate their present job on twenty-three items in five different formats.

The obvious conclusion after reviewing studies which have measured job satisfaction is that the use of a questionnaire is the overwhelming choice of researchers. The ability to assess multiple aspects of the job setting and to obtain quantifiable data is a definite advantage to questionnaires. Much less obvious however, is any particular agreement as to one best scale. The preference for the use of a particular scale is its ability to match the needs of the study at hand. An attribute not yet investigated is the use of a particular scale over time as a tool for an organization to use in strengthening its management of employees.

Organizational Climate

The manner in which a person acts to carry out a task depends upon the individual attributes of the person and the setting in which the act is carried out. In organizations, both the collection of individuals and

the setting in which they work are unique. The setting in which individuals act has been labeled by terms such as environment, conditions, context, and climate. The most frequently used term in organizations to identify this setting has been climate. From a rather meteorological concept of the term climate, which described the prevailing conditions of an organization, climate has become a descriptive term for that relatively enduring quality of the total organization experienced by the members (Tagiuri & Litwin, 1968).

Although organizational climate is not a variable being measured in this study, the purpose of this portion of the literature review is to identify climate as a broad multi-dimensional concept which has potential to influence the behavior of individuals in the organization. As such, job satisfaction, as well as other work dimensions, are influenced by the existing climate which individuals experience while working in the organization. Therefore, identifying the general attributes of climate and clarifying a definition of it will be useful in understanding the influences of climate and in distinguishing between concepts such as climate and job satisfaction.

Defining Organizational Climate

In a review of climate research, Jablin (1980) concludes that the foundation of climate research was the psychological field studies conducted by Kurt Lewin and his associates in the 1930's. Lewin (1951, p. 241) states that "To characterize properly the psychological field, one has to take into account such specific items as particular goals, stimuli, needs, social relations, as well as more general characteristics of the field as the atmosphere or the amount of freedom". This early perspective identifies a surrounding influence which affects individuals as they function in their various life settings. Climate is often used to connote an all encompassing effect. The term climate reflects several assumptions by researchers who use the concept. Although the term is rather difficult to define, due to the various operational definitions invoked in research, Tagiuri and Litwin (1968) have ascribed fourteen attributes which help to delimit the concept of climate. The attributes of climates according to Tagiuri and Litwin are:

- Climate is a molar, synthetic concept (like personality).
- Climate is a particular configuration of situational variables.
- Its component elements may vary, however, while the climate may remain

the same.

- It is the meaning of an enduring situational configuration.
- Climate has a connotation of continuity, but not as lasting as culture.
- Climate is determined importantly by characteristics, conduct, attitudes, expectations of other persons, by sociological and cultural realities.
- Climate is phenomenologically external to the actor, who may, however, feel that he contributes to its nature.
- Climate is phenomenologically distinct from the task for both observer and actor.
- It is in the actor's or observer's head, though not necessarily in a conscious form, but it is based on characteristics of external reality.
- It is capable of being shared (as consensus) by several persons in the situation, and it is interpreted in terms of shared meanings (with some individual variation around a consensus).
- It cannot be a common delusion, since it must be veridically based on external reality.
- It may or not be capable of description in words, although it may be capable of specification in terms of response.
- It has potential behavioral consequences.
- It is an indirect determinant of behavior in that it acts upon attitudes, expectations, states of arousal, which are direct determinants of behavior (Tagiuri and Litwin, 1968, p. 24-25).

The summation of the above assumptions provides a basis for a definition of climate within an organization. Tagiuri and Litwin (1968, p. 25) define climate as the "relatively enduring quality of the total environment that (a) is experienced by the occupants, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attributes) of the environment".

Although "many investigators have adopted Tagiuri and Litwin's definition..." (Albrecht, 1979, p. 343), other definitions are used to specify climate. Dennis (1975, p. 4) defined climate as "a subjectively experienced quality of the internal environment of an organization; the concept embraces a general cluster of inferred predispositions, identifiable through reports of members' perceptions of messages and message-related events occurring in the organization." Payne and Pugh (1976, p. 1141) describe climate as "a molar concept reflecting the content and strength of the prevalent values, norms, attitudes, behaviors, and feelings of the members of a social system." A multi-dimensional "summary perception which people have of (or about) an organization" is how Schneider and Snyder (1975, p. 318) conceptualize climate. For them it is "a global impression of what the organization is...." As such,

"climate perceptions are perceptions of organizational events and conditions that occur in the work setting" (p.319). For Schneider, climate perceptions are descriptive of conditions which exist in the work environment. Hellriegel and Slocum (1974, p. 256) define organizational climate as a "set of attributes which can be perceived about a particular organization and/or its subsystems, and that may be induced from the way that organization and/or its subsystems deal with their members and environment."

The theme of these definitions is a view of organizational climate as an enduring, multi-dimensional, perceptual summary of the conditions existing in the organization as defined by the members of the organization.

Although this appears to be the dominant view of climate, James and Jones (1974) reviewed climate research and identified three categories of climate measurements as (1) multiple measurement-organizational attribute, (2) perceptual measurement-organizational attribute, (3) perceptual measurement-individual attribute. Their conclusions were that the multiple measurement approach was so broad that anything would fit into the spectrum of climate, thereby making the concept incapable of contributing anything to the understanding of organizations. Further, the perceptual

measurements, although in some situational influences it might be appropriate to consider climate separately, generally measured climate as a duplication of other organizational concepts. Thus, climate was considered a redundant variable of individual or organizational attitudes.

Criticisms of the concept of climate do exist in the literature. Hellriegel (1974, p. 256) identifies three sources of concern surrounding climate. The assumption that the climate in organizations is based on individuals at a given hierarchical level having similar perceptions, leads to problems with the conception of climate. First, if climate is a perceptual measure, then "there are potentially as many climates as there are people in the organization." Second, Hellriegel (p. 256) states that Guion criticizes climate by stating, "to many in the field, there seems to be real confusion over whether 'climate' refers to attributes of organizations or attributes of people." Finally, a criticism which concerns some is "the possible overlap and redundancy between job satisfaction and climate" as organizational variables (p.256).

Through an extensive review of the literature, Hellriegel (1974, p. 276) concludes that, "On a conceptual level, the organizational climate construct has relatively well-defined boundaries and suggests

considerable potential for describing and understanding behavior of individuals within organizations. However, the movement from the conceptual level to the measurement of climate continues to pose problems and ambiguities yet to be resolved." Further, the attributes of climate proposed by Tagiuri and Lirwin (1968) tend to specify and delimit the scope of climate into a more specific concept. Even stronger support for climate as a distinct concept in organizations was forwarded by Joyce and Slocum (1984, p. 736) in their study on collective climates in organizations. They conclude that at the individual level, climate has been rather widely agreed to be a summary perception of the organization's work environment. Their research led them to conclude that a collective climate was a distinct construct and was related to job satisfaction and job performance. Collective climates represent "learned environments for participants working within them. To the extent that these climates provide a common frame of reference for participants, they would be expected to exert potent influences on individual performance and satisfaction". Thus, the results of Joyce and Slocum (1984) indicate that the summary perceptions of individuals can act to influence individual behavioral dimensions of the work setting, particularly in relation to job satisfaction.

A further distinction of climate in relation to job satisfaction was also found. Although Guion (1973) and Johanneson (1973) have argued that climate and satisfaction are redundant, other researchers (Appelbaum & Anatol, 1979; Jablin, 1980; Schneider & Snyder, 1975) have identified climate as a "descriptive construct" while job satisfaction was said to be an "evaluative construct." This distinction of the two constructs as not being redundant was part of the conclusions of Joyce and Slocum (1984, p. 730) as their findings failed to show a consistent, redundant relationship between the measurements of climate and job satisfaction across all three industrial plants studied. Their conclusion was that "the absence of such effects and the lack of consistency across the three plants does not support the equivalence of these constructs" (climate and job satisfaction).

But how do individuals develop this summary perception of the organization called climate? Schneider and Reichers (1983) propose that the source of these climate perceptions lies in two categories: A structural approach which exerts influence upon individuals through the characteristics of the organizations such as size or span of control, and a selection attraction attrition approach which holds that individuals seek and are sought out by organizations in

order to secure an acceptable match between the individual and the organization. In the latter approach, individual-organizational match is improved by an individual quitting, being moved, or having corrective action taken against him. Thus, the similarity of climate perception is enhanced because those individuals who remain have learned the environment in which they function and have developed a similar overall perception of that climate. This process of attraction-attrition enhances the development of a similar perception as individuals with divergent perceptions tend to either change or leave. Although little research has been conducted on this proposition, the potential influence of the process upon climate perceptions should be a concern for future climate research.

In summary, organizational climate is a multi-dimensional summary perception by individuals about what exists within their work environment which, as a collective reflection, affects the behavior of the individuals within the organization.

Summary of Literature Review

The literature review presented in this chapter makes the following contributions to this study:

1) Job satisfaction is a multi-dimensional concept which develops in the interaction between the individual and the work climate existing for that individual.

2) The individual responds to the job as a whole in making conclusions as to the level of satisfaction derived from the work setting.

3) Although no single relationship appears to exist between job satisfaction and performance, there does appear to be a positive relationship between communication feedback and improved job satisfaction.

4) The survey is the primary tool used in assessing organizational climate, even though no single scale has been identified as "the" scale.

5) Organizational climate is a multi-dimensional summary perception by individuals about what exists within their work environment which, as a collective reflection, affects the behavior of the individuals within the organization.

6) Climate and job satisfaction are distinct concepts, but the climate perceptions of individuals can

act to influence individual behavioral dimensions of the work setting, particularly in relation to job satisfaction.

7) Improved performance is associated with feedback.

8) Feedback to a group can be an effective means of improving performance but should be accompanied by modeling to reduce the possibility that the feedback would get lost in the group.

9) Attitude surveys are a systematic way of finding out what people are thinking and feeling.

10) Although there is an imperfect link between attitudes and behavior, through the use of attitude surveys much can be learned about the individual in the work setting, particularly if attitudes are assessed over time.

Given these conclusions from the literature review, the research questions of this study test a specific corporate attitude survey on factors related to job satisfaction.

Research question one attempts to identify the multi-dimensional nature of the organizational climate by discovering the specific factors which are being assessed through the corporate survey.

Question two takes the Job Satisfaction Factor Scores as the primary concern and identifies which

factor scores in the survey show a correlation with the Job Satisfaction Factor Scores.

Question three assumes that the Job Satisfaction Factor Scores are an interaction between the individual and the work climate and tests to determine if the different periods of corporate growth experienced by the company had a significant effect on the Job Satisfaction Factor Scores of the employees. Additionally, the effect of being in different employee pay classifications is tested for significance.

Question four assumes that climate elements reflected in the survey might be significant predictors of the Job Satisfaction Factor Scores. Therefore, both the items and factor scores are tested for significance as a predictor of Job Satisfaction Factor Scores.

Finally, question five is based on the assumption that the interaction between the individual and the climate may vary from year to year and thus tests each pay classification for significance in the year by year change.

Thus, this chapter provides a context for the study by summarizing relevant literature and developing a base for the research questions as an extension of the literature. Chapter Three details the methodology used to test these questions.

CHAPTER THREE

METHODOLOGY

The primary objective of this study was to analyze the results of a corporate climate survey administered across a five year period from 1980 through 1984. The methodology was designed to discover the basic underlying factors of the survey so that those factors could be used to identify the relationships among (a) job satisfaction, (b) climate factors, and (c) certain demographic characteristics over a five year period.

This chapter identifies the procedures and analyses used. (1) The subjects are described, (2) the process used by the corporation's staff to collect the survey data is defined, (3) the survey instrument is described in detail and (4) the general procedures used for all analyses are identified.

Subjects

The data was collected from 8,438 employees in various manufacturing plants who completed the corporate climate survey between 1980 and 1984. These employees

worked in approximately one-half of the corporation's fifty United States based plants, and they are distributed across the corporation's three pay classification groups: Exempt, Non-Exempt, and Hourly.

Distribution of Employees

Exempt	1483
Non-Exempt	1190
Hourly	5765

Survey Administration

The survey has been administered each of the last five years (1980-1984) in various local plants throughout the corporation. The plants were under the direction of the plant manager who reported directly to the corporate vice-president. Although the survey was not required of all plants, it was made available by the corporation's Human Resource office and encouraged by top management. Over half of the plants participated in the survey administration. All administrations of the survey were standardized by the corporation's human resource director, so that individuals from outside the plant administered the survey in an employee meeting. A standard written set of instructions was read, and a standard set of overhead transparencies was used to explain the instructions to the employees. Although

participation was voluntary, 97% participated across the five years of administration. The completed surveys were then placed by the employee in a sealed box which was sent to an independent data processing firm for tabulation.

The administrator of each survey was trained by the corporate Human Resource Director and was from the resource development staff of the corporate office. The surveys were administered on company time and in employee group meetings of 30 to 50 employees.

Survey

The survey used in this study was developed by the corporation's Human Resources staff in time for an initial testing during 1979. The survey, according to corporate officials, was modeled after the employee survey used by the General Electric Corporation. It was chosen as a model because of its wide range of items and its reputation as an excellent tool for obtaining employee opinions and attitudes. The survey, consisting of 75 Likert-like items (displayed in Appendix A), was designed to assess the opinions and attitudes of employees regarding many aspects of work environment, pay, relationships, and working conditions. Responses ranged along a five point scale from 1, "strongly agree", to 5, "strongly disagree."

In introducing the survey, the administrator explained the purpose of the survey as an opportunity to make the employees' work more satisfying and productive while communicating their concerns to both the local and corporate management. Done on company time, completion of the survey averaged fifteen minutes. Although space was provided for written comments on each page of the survey, most subjects choose merely to check off the appropriate space along the Likert response range.

Analyses

Using the statistical analysis available with SPSSx, five analyses were performed on the survey data to address the research questions. Although the specific analytic procedures for each question will be presented in the following discussion, an overview of the analyses performed is presented here.

First, a Principle Components Factor Analysis with a varimax rotation determined the cluster relationships which existed among the 75 items in the survey and identified the more basic underlying factors in the data. The minimum eigenvalue for factor acceptance was >1.0 . This step served as the basis for the other procedures by identifying the specific factors, the job satisfaction factor, and the weighted factor scores.

Second, a Pearson Correlation was calculated to determine the significant correlations between the subset of items with high loadings on job satisfaction and the subsets of items which had high loading on each of the other factors. This procedure is explained in more detail below.

Third, an Analysis of Variance was conducted to determine whether the levels of high and low corporate growth had any effect on the employee's job satisfaction. The demographic structure of the data enabled the researcher to test for a significant difference in job satisfaction among the three pay classifications. The Analysis of Variance was used to determine if a difference existed and to obtain group mean scores which were then tested by Protected t-tests to determine if differences existed between paired employee pay classification groups. The Protected t-test is also known as the Least Significant Difference test as the formulas are identical.

Fourth, prediction of the Job Satisfaction Factor Scores from the survey items and factor scores was pursued by conducting a Stepwise Multiple Regression for both the items and the factor scores. The minimum F to enter was >4.0 .

Finally, a consideration of the differences in job satisfaction from year to year within each pay

classification was tested by conducting an Analysis of Variance for the pay groups and Protected t-tests (Least Significant Difference test) between years of a specific pay group.

The minimum level of significance adopted for the study was the .05 level; however, the actual level of significance is reported for each procedure.

Analyses related to each Research Question

QUESTION 1: What are the basic underlying factors which emerge from the items contained in the corporate climate survey?

The 75 survey items were factor analyzed so that the researcher could gain insight into the structure of the variables in the instrument. To answer this question a Principle Components Factor Analysis with a varimax rotation calculated the intercorrelations among the survey items. Since the factor analysis takes the variance defined by the intercorrelations among a set of measures and attempts to allocate it in terms of fewer underlying hypothetical variables and factors, the large number of items in the instrument could thus be reduced to a more basic set. The minimum eigenvalue for factor acceptance was 1.0.

The initial factor analysis was run on the total

population data so that a general indication of key factors could be discovered for the study. Although some advantages may have accrued to factor analyzing responses from years or pay classifications, the large number of employees surveyed gave strength to an overall, corporate set of factors which was more useful to this study.

After this initial analysis, the factor loadings were reviewed and grouped into factors. An item was considered to load unambiguously into a factor if its loading was $>.50$ and all other loadings for that item were $<.40$. This procedure yielded thirteen factors. No item was loaded on more than one factor. However, one factor displayed extremely high loadings of $.80$ or greater. An investigation of item mean scores by year revealed that items 64-75 had been added to the survey in year 4 and were therefore coded as 0 in the data. The result was that items 64-75 were all loading together in a stronger manner because of the 0 coded into years 1, 2, and 3.

In order to consider more exactly the factors of the survey, three additional factor analyses were performed. First, items 1-63 were factor analyzed for years 1-3. Second, an analysis of items 1-75 was conducted for years 4 & 5. The results yielded nearly identical factor structures for both analyses. After

the first two analyses it was decided that a third factor analysis would be conducted on items 1-63 for years 1-5. This decision was made to give the strength of the five years and of the 63 items which had data available for each of the five years.

The final factor analysis yielded twelve distinguishable factors identified in the next chapter. The factor structure was also similar to the previous analyses and was established by the same standard of an item loading at $>.50$ with all other loadings of $<.40$.

Scores for each factor were then calculated by using the weighted loadings for only those items in the factor with loadings above $.50$. This procedure produced new scores which are not technically full factor scores but are composite estimates of the factor based on the most important subset of items which loaded on the individual factors. This is a common procedure used in instrument development and subsequent research with that instrument. It is these new derived "factor subset" scores which served as the basis for some of the analyses to follow. It should be remembered that all references to factor scores refer to these newly derived scores.

QUESTION 2: Are there significant correlations between Job Satisfaction Factor Scores and other factor scores of the corporate climate survey?

After the factors were identified, it was desired to discover how the Job Satisfaction Factor Scores might be related to other factor scores on the survey. Consequently, a Pearson Correlation was run to identify the strength of these relationships.

Herein lies a technical problem of analysis. The varimax transformation of a Principle Components Analysis, which was used, produces a rotated matrix of orthogonal factors. Therefore, by definition the correlations between the factor scores derived from all items will be 0.0 if all items are used which load on a factor regardless of the strength of the loading.

However, the correlation analysis was not run on the complete factors which would have contained all the items which loaded on a given factor. Instead, the procedure described above noted that new factor scores were compiled using only those items which had loadings $>.50$ on one factor and did not load high enough to define any other factor. Therefore, the correlations were among the factor subset scores. At this point, they become subscales on an instrument which now define a variable using a subset of the items. In such cases, the correlation matrix is appropriate (Glasnapp, 1986).

Of particular interest was the identification of factors which correlated with the Job Satisfaction Factor Scores. This procedure was selected so that the

survey, which had been reduced to basic key factor scores, could now reveal the strength and direction of the relationships which exist between the Job Satisfaction Factor Scores and other factor scores. As a result, the utility of the instrument could be enhanced by identifying those basic factor scores which more strongly relate to the Job Satisfaction Factor Scores. Ultimately, some insights for managers may be gained by considering the strength of these factor score relationships.

The level of significance for the correlation coefficient was established at $p < .05$.

QUESTION 3a.: Do the levels of corporate growth and employee pay classification significantly affect the employee Job Satisfaction Factor Scores?

A multi-way Analysis of Variance (ANOVA) was run with the Job Satisfaction Factor Scores as the dependent variable and corporate growth and employee pay classifications as the independent variables. Corporate growth was divided into two levels: high growth (years 1980 and 1981) and low growth (years 1982, 1983, and 1984). The assumption for this separation is based on the record corporate growth experienced in sales, profits, and employee benefits in 1980 and 1981 and on the distinct decrease in sales, the stagnating of corporate salary increases, and the reduction of

employee benefits during 1982, 1983, and 1984.

The other independent variable was the pay classifications of the employees. The official salary categories were: Exempt (Management), Non-Exempt (Staff and Clerical), and Hourly (Factory workers).

The dependent variable was the Job Satisfaction Factor Score calculated from the previous weighting of the factor items following the factor analysis. This factor score was created by the SPSS-X program by combining the items loading strongly in each factor. As a result, the factor scores reflect the strength of each item loading above .50 in the final factor score.

ANOVA was chosen because the question asks whether the variance between the groups was large enough when compared to the variance within the groups to justify the inference that the means of the populations from which samples are drawn may be different. An F-test was used to determine the significance of the difference in the job satisfaction ratio of the two variances (between group and within group variance) with the level of significance set at $p < .05$. The ANOVA tested for an interaction effect for corporate growth and pay classification as well as a main effect for both pay classification and for corporate growth.

QUESTION 3b.: Are there significant differences in the job satisfaction factor score of the three employee pay

classifications?

Answering this question required the one-way Analysis of Variance, calculated for question 3a., and the Protected t-test (Least Significant Difference test). In this question, the pay level of the employees was considered the independent variable and job satisfaction the dependent variable. The three pay levels, previously defined, are Exempt, Non-Exempt, and Hourly. Employees are located in one of the groups as a result of their corporate job classification. Here again, job satisfaction was defined as the Job Satisfaction Factor Scores.

The Analysis of Variance showed that there was a significant variation among the means of the three pay classification groups, the between-group variance. According to Williams (1979), "the more difference there is among group means, the greater would be the value of the between-group variance." (p. 79) In interpreting the significance of the variance, an F-test was conducted. It is represented by:

$$F = \frac{\text{variance between groups}}{\text{variance within groups}}$$

According to Williams (1979), "The key point in analysis of variance is that if there are no differences among the groups, then the between-groups variance and the within-groups variance will be approximately equal. The more a value of between-groups variance exceeds the

within-groups variance, the greater is the probability that the groups represent different populations (p.80)."

Using the means of the employee pay groups generated in the ANOVA, Protected t-tests were run to compare (a) the Exempt vs. Hourly, (b) Non-Exempt vs. Hourly, and (c) Exempt vs. Non-Exempt employee groups. In each case, the level of significance was set at the $p < .05$ level.

QUESTION 4a.: What items in the corporate climate survey are the best predictors of the employee Job Satisfaction Factor Scores?

QUESTION 4b.: What other factor scores derived from the corporate climate survey are the best predictors of the employee Job Satisfaction Factor Scores?

Stepwise Multiple Regressions were run for both Questions 4a & 4b. Initially, a multiple regression of survey items determined if there were items which were significant predictors of Job Satisfaction Factor Scores. The Job Satisfaction Factor Scores were used as the criterion variable. This analysis revealed the relative degree of contribution of each significant survey item in predicting the job satisfaction factor scores.

A second multiple regression used the various factor scores as the predictor variables. The intent in

this procedure was to discover which factor scores were the best predictors of the Job Satisfaction Factor Score. The level of significance for both the items and the factors was set at the $p < .05$ level.

QUESTION 5a.: Is there a significant difference in the mean Job Satisfaction Factor Scores of Exempt employees between the years 1980 through 1984?

Question 5b.: Is there a significant difference in the mean Job Satisfaction Factor Scores of Non-Exempt employees between the years 1980 through 1984?

Question 5c.: Is there a significant difference in the mean Job Satisfaction Factor Scores of Hourly employees between the years 1980 through 1984?

Analysis of Variance across all five years used the Job Satisfaction Factor Scores as the dependent variable and the pay classification as the independent variable. This was done to determine if there was a significant difference for job satisfaction factor scores in the interaction of pay classifications and the years. The level of significance set for this ANOVA was $p < .05$.

Following the ANOVA, the means for each year and pay classification were computed. The yearly means, by pay classification, were then charted to assist the researcher in better visualizing the pattern of change in the job satisfaction means of each pay

classification.

An ANOVA was then conducted for each year to determine if there were differences in the job satisfaction of the three pay classifications within each year. The level of significance was set at $p < .05$.

In order to determine if significant differences existed from year to year within the pay classification, Protected t-tests were calculated using the means derived from the ANOVA. For each pay classification the Protected t-test was used to compare the difference in job satisfaction factor scores from 1980 to 1981, 1981 to 1982, 1982 to 1983, 1983 to 1984, and 1980 to 1984. The level of significance for the Protected t-tests was $p < .05$.

Summary of the Methodology

The survey data collected on the large sample of employees was analyzed so that a greater understanding of the survey and of job satisfaction in the company could be obtained. The procedures described provided the means to accomplish that. Although researcher control over the collection process was not possible, the corporate procedures followed provided a reasonable level of safeguard and control. The statistical tests were chosen to enhance the potential for gaining insights to the data. The results of those tests are

presented in Chapter Four.

CHAPTER FOUR

RESULTS

The general purpose of this research was to analyze an industrial corporation's employee climate survey in terms of employee job satisfaction in order to understand the survey and what it reveals about the organization. Answers to five research questions about the data were obtained by analytic procedures available through SPSSx, and the descriptive results of those data analyses are reported in this chapter. Specific attention is focused on: (1) the factor structure found in the survey; (2) the correlations between the Job Satisfaction Factor Scores and the other factor scores of the survey; (3) the effect of corporate growth (high and low) on employee Job Satisfaction Factor Scores; (4) the effect of pay classifications on employee Job Satisfaction Factor Scores; (5) the degree of significant contribution made by items and other factor scores in predicting Job Satisfaction Factor Scores; and (6) the significance of the difference between years in the Job Satisfaction Factor Scores of employees at each pay classification.

Factors in the Corporate Climate Survey

Question 1: What are the basic underlying factors which emerge from the items contained in the corporate climate survey?

The large number of items in the survey made its use slow and cumbersome. Therefore, one objective of the factor analysis was to reduce the survey into fewer, more basic factors. As expected, a clearly defined factor of Job Satisfaction emerged from the survey to provide the key factor for future analyses.

The factors were obtained through a Principle Components Factor Analysis with a Varimax rotation. In all, the items clustered into the twelve factors presented below and in Table 1. Each factor included in the results had an eigenvalue of greater than 1.0. An item was included into a cluster if it loaded unambiguously by having a .50 or greater loading with all other loadings less than .40. Therefore, the factor scores were an estimate of the factor.

The factors are:	Eigenvalue
1. Supervision	14.99
2. Management	3.41
3. Benefits	2.56

4.	Job Satisfaction	2.14
5.	Job Conditions	1.86
6.	Problem Solving	1.67
7.	Dissatisfaction	1.58
8.	Job Information	1.46
9.	Product Quality	1.16
10.	The Survey	1.14
11.	Pay Satisfaction	1.08
12.	Minority Opportunity	1.05

Table 1 shows the survey item number, the factor loading of the item, and the item statements which comprise each factor according to the standards established for this study. It should be noted that there were no dual loadings and that the secondary loadings were low for the items which significantly loaded on the factors below.

Table 1
Factors, Factor Loadings, and Survey Item.

Supervision

#23	.73234	My supervisor is willing to listen to my work related ideas and opinions.
#24	.72833	Overall, I think my supervisor is doing a good job.
#21	.69181	My supervisor shows confidence in my ability to do my job.
#20	.68640	My supervisor praises me enough when I do

a good job.

#19 .66659 When I talk to my supervisor about job related problems or complaints, I am usually treated fairly.

#15 .62186 My supervisor seldom shows favoritism.

#17 .57036 The assistance provided to me by my supervisor in working toward my career objective is adequate.

#14 .51877 My supervisor discusses my work performances with me several times a year.

#43 .51057 I feel free to communicate "bad news" to my supervisor.

Management

#41 .72607 Sufficient effort is made to get the opinions and thinking of people who work here.

#45 .65437 I am satisfied with the information I receive from management about what is going on in the company.

#40 .63606 People at the top of this organization are aware of problems at my level.

#42 .61751 Management meets regularly with me and other employees.

#46 .58682 Overall, I think the program to handle promotions and upgrades is good.

#33 .52835 During the past year relationships between management and employees have been getting better.

#44 .52015 The personnel department is responsive to my needs.

Job Satisfaction

#29 .76036 I like the kind of work I do.

#30 .75146 My work gives me a feeling of personal accomplishment.

#31 .69086 My job makes good use of my skills and abilities.

#36 .50905 Overall, I am satisfied with my job.

Benefits

#51 .77888 The medical insurance is a good benefit program.

#48 .75125 Overall, I feel the total benefit program is a good one.

#53 .71774 The life insurance is a good benefit program.

#52	.71542	The pension is a good benefit program.
#49	.58248	The vacation program is a good benefit program.

Dissatisfaction

#32	.77766	I may leave I...R... within the next twelve months because of dissatisfaction with my job.
#26	.72062	I may leave I...R... within the next year because of my dissatisfaction with my pay.
#34	.64552	My work is not as satisfying as it used to be.
#09	.59517	I feel too much pressure on my job.

Job Conditions

#04	.58228	Lavatories are clean and well maintained.
#08	.62418	Overall, I think the work conditions in my area are good.
#11	.61961	I believe that my lunch room facilities are adequate.

Survey

#61	.77401	Filling in this survey is a good way to let management know what I think.
#62	.74499	The questions in this survey are easy to understand.
#63	.64836	I would like the company to take another survey in the future.

Product Quality

#60	.75431	Our customers know they can depend upon our products.
#59	.68951	I feel we produce a quality product.

Problem Solving

#05	.66235	Important problems in my work area are not likely to be swept under the rug.
#22	.65676	I receive clear direction from my supervisor concerning priorities related to my job.

Job Information

#06	.63106	I have enough information to do my job well and safely.
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#57 .57912 I feel I have received adequate training for my present job.

Pay Satisfaction

#25 .71875 I feel I am paid fairly in comparison to the pay for similar work in other companies in this area.

#27 .69522 I believe my present pay is about right for the work I do.

Minority Opportunity

#55 .69600 The company's effort to hire, train and upgrade people from minority groups has been about right.

#56 .56471 The company's affirmative action program has been communicated to me.

The factors identified above were named on the basis of the general content of the clustered items. The following provides a descriptive summary of each factor.

Supervision

The largest cluster of items surrounded the concept of the immediate supervision of the employee. This factor expresses the employee's view of his/her relationship with the supervisor. Issues of the supervisor's openness to communication, praise of the employee's work, and the overall opinion of the supervisor's performance comprise this factor. The perception and the effectiveness of this employee-supervisor relationship plays an important role in the day-to-day operation of the organization. As

such, this relationship has potential for influencing the satisfaction of employees in their work situations.

Management

The Management Factor grouped items which dealt with the broader concerns of the overall organizational leadership. This factor differed from the local emphasis of the supervision factor by focusing on broader corporate leadership concerns. The value of this distinction from immediate supervision is the ability to separate the influence of the day-to-day supervisors from the overall impact of corporate management. Management issues influencing the total corporation are more likely to be expressed through this factor.

Job Satisfaction

The core of the study revolved around the factor of Job Satisfaction. The items which clustered here expressed the level to which an individual could state, "I am satisfied with my job." The factor captured the feeling of personal accomplishment experienced by the worker as it recorded the evaluation of the extent the worker liked the kind of work done and how that job made good use of the skills of the worker. In essence, this factor reflected the general nature of the employee's

feeling of being satisfied with the job.

This factor was used as the standard to measure job satisfaction through analyses performed to correlate, predict, and test the differences among work groups and the level of job satisfaction.

Benefits

The items in the survey indicating information about employee's vacations, insurance, pension, and overall benefit programs clearly grouped together. With the changes in the benefit programs at the corporation, this factor provides a method to consider the impact of benefit changes that have occurred.

Dissatisfaction

The items asking employees to indicate their probability of leaving the company in the next year because their job or pay was not satisfying grouped into the Dissatisfaction Factor. Additionally, an assessment of whether the work being done now is as satisfying as it used to be is made as well as an indication of excessive job pressure.

This factor could be used as a confirmation of the opinions being given in the job satisfaction factor as well as an independent factor to monitor. Perhaps the sources of dissatisfaction are more readily

reflected here than in other less obvious or direct factors in the survey. The value of this factor is the ability to monitor whether or not the changes occurring in the corporation lead workers to say that they are dissatisfied and thus more likely to leave the company. Perhaps, as Herzberg theorized, there are distinct factors which satisfy and distinct factors which dissatisfy, and therefore the two distinct factors would provide additional ways to monitor employee responses.

Job Conditions

This factor reflects a concern for the basic physical environment of the job setting as it affects the employee. Certainly, basic minimum levels of acceptable job conditions must be maintained within the corporation in order for a satisfying condition to be created in the work place. However, this factor, which asks whether the work conditions are thought to be good, has a rather narrow scope in its present state and may not give broad indications of specific issues related to job conditions.

Survey

The three items which clustered here expressed the employee's reaction to filling out the survey, having it done in the future, and its use as a tool to

communicate with the management about the opinions of employees.

Product Quality

The employee's sense of pride in the job and the product was expressed in this factor.

Problem Solving

The Problem Solving factor contained two items which indicated the practice of management and supervision facing problems directly and distinguishing which priority to pursue. The sense of clear direction and willingness to deal with problems is a concern of employees which can be considered here.

Job Information

The concern for having enough information to do a job well and having sufficient training for the job was the focus of this factor.

Pay Satisfaction

The issue of pay satisfaction and an employee's sense of fairness of the pay in relation to the job is the concern here. Since the corporation attempted to position itself at or above other local companies, this factor is a report of the perception of the employees

about that policy. Additionally, this factor would be useful in considering the changes that occurred in pay.

Minority Opportunity

Finally, the company's effort to recruit, train, and be committed to minorities was reflected in the Minority Opportunity Factor. Corporate perceptions of this factor would be important to study to insure that the affirmative action efforts were being effectively carried out and recognized across the corporation.

Summary of Factors

The factor analysis provided a more concise way to consider several climate issues within the corporation. The factors reduced the amount of data that must be dealt with from 63 items to 12 factors demonstrating that the primary concerns of the survey can be expressed more efficiently.

Correlation Between Factors of the Survey

Question 2: Are there significant correlations between the Job Satisfaction Factor Scores and the other factor scores of the corporate climate survey?

The second research question sought to identify

how each of the eleven other factor scores correlated with the Job Satisfaction Factor Scores. To achieve this, the relationships among the derived factor scores of the survey were explored by the Pearson Product-Moment Correlation. These results are presented in Table 2. It is important to note that due to the method of constructing the factors, the use of only the significant loadings, the correlations here are with factor scores and not the total factor.

Table 2

Pearson Product-Moment Correlations between the Job Satisfaction Factor Scores and the eleven survey factor scores.

<u>Factor</u>	<u>Coefficient</u>	<u>N</u>	<u>P</u>	<u>r square</u>
Supervision	.4357	8426	p<.001	.1898
Management	.4045	8434	p<.001	.1636
Job Information	.3404	8438	p<.001	.1159
Product Quality	.3341	8437	p<.001	.1116
Job Condition	.3188	8433	p<.001	.1016
Minority Opp.	.2732	8437	p<.001	.0746
Pay Satisfaction	.2581	8438	p<.001	.0666
Survey	.2234	8426	p<.001	.0499
Benefit	.1918	8435	p<.001	.0368
Problem Solving	.1341	8433	p<.001	.0180

Dissatisfaction	-.1894	8430	p<.001	.0359
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Significance of the Correlations

The first consideration is the significance of the correlation between factor scores and Job Satisfaction Factor Scores. The results in Table 2 indicate that the correlation for each of the eleven factors was significant at the $p<.001$ level even though the relative strength of the relationship was moderate. Therefore, the probability of obtaining the correlation from sampling error is minimal. However, even though each correlation was significant at the $p<.001$ level, the strength of each correlation is important and is considered below.

Strength of the Correlation

The two strongest correlations with the Job Satisfaction Factor Scores were with the Supervision factor, .4357, and the Management factor, .4045. According to the guide suggested by Guilford (in Williams, 1979, p. 128), a correlation at the .40 to .70 magnitude can be considered a moderate strength correlation. Therefore, the correlations obtained indicate a "substantial relationship" between Job Satisfaction Factor Scores and the two factor scores.

Since the correlation only shows a relationship

and does not assign cause, it is not possible to conclude that job satisfaction is caused by employee reactions to supervision and management or any of the other correlated factors. However, the degree to which they are correlated does indicate the degree to which they vary together and reveals that the significantly correlated factors are important to job satisfaction. Naturally, changes in the strength of those correlations over time could signal a warning that changes are occurring in the relationship to job satisfaction and that further study should be made.

Direction of the Correlation

The only factor score which was negatively correlated with Job Satisfaction Factor Scores were the Dissatisfaction Factor Scores, $-.1894$. Although the remaining eight factor scores displayed relatively small relationships, all of them had a positive, significant correlation to Job Satisfaction Factor Scores.

Perhaps the most interesting relationship was the negative correlation of Job Satisfaction Factor Scores and Job Dissatisfaction Factor Scores. It was expected that a negative relationship should be found between these two factors because of the opposite issue being considered here. Although the correlation was not a strong one, it did help to confirm that two different

concepts were being measured by these distinct factors. As job satisfaction increases, dissatisfaction decreases.

Effect of Corporate Growth and Pay Classification on
Employee Job Satisfaction

Question 3a: Do the levels of corporate growth and employee pay classifications significantly affect the employee Job Satisfaction Factor Scores?

The first step in discovering the answer was to compare Job Satisfaction Factor Scores in the period of high corporate growth with that in the period of low corporate growth.

Table 3
Means of Job Satisfaction Factor Scores by Pay
Classification and Year (lower mean represents stronger
job satisfaction)

<u>Year</u>	<u>Exempt</u>	<u>Non-Ex.</u>	<u>Hourly</u>
1980	6.329	5.923	6.679
1981	5.666	5.915	6.381
1982	5.226	5.399	6.406
1983	5.620	5.874	5.867
1984	5.683	6.073	5.826

An Analysis of Variance was conducted on the total data set to determine if there was a main effect on Job Satisfaction Factor Scores by the variables of corporate growth and employee pay classification. The

ANOVA was run to test for three conditions: (1) the effect of corporate growth on Job Satisfaction Factor Scores; (2) the effect of pay classification on Job Satisfaction Factor Scores; and (3) the interaction effect of corporate growth and pay classifications on Job Satisfaction Factor Scores.

The results in Table 4 indicate some interesting observations. Primarily, the ANOVA showed that there was not a significant interaction effect on Job Satisfaction Factor Scores when pay and growth levels were considered together. However, the separate results of the test for a main effect for pay and a main effect for growth do indicate a significant effect for both pay and growth at the $p < .001$ level. Thus, as Table 4 indicates, the difference in Job Satisfaction Factor Scores was related to both pay classification and to corporate growth separately, but the distinction of those two effects did not allow for an interaction effect when they were considered in combination. Therefore, changes in Job Satisfaction Factor Scores are significantly influenced by what pay classification the employees are in and also by the period of corporate growth from which the data has been collected. However, the pay classification and the period of corporate growth do not vary together in a significant way when considering Job Satisfaction Factor Scores.

Table 4

ANOVA for the Effect of Corporate Growth and Pay
Classification on Job Satisfaction Factor Scores

<u>Effect</u>	<u>F</u>	<u>P</u>	<u>DF</u>	<u>MS</u>
Corporate Growth & Pay Classification	2.75462	NS	2,8432	5.03786
Pay Classification	49.92051	p<.001	2,8432	5.03786
Corporate Growth	80.15336	p<.001	1,8432	5.03786

Based on the ANOVA above, Table 5 provides a look at the differences between the Job Satisfaction Factor Scores means of each pay classification collapsed across corporate growth. The Job Satisfaction Factor Scores for each pay classification were more favorable in the low growth period (mean = 5.8) than the scores for the high growth period (mean = 6.1). As indicated above in Table 3, there was a significant effect for the growth period on Job Satisfaction Factor Scores. Thus, the level of job satisfaction was significantly influenced by corporate growth periods. Although one might expect that the normal condition would be for a stronger job satisfaction during the "good times," these results indicate that the low growth time had a higher reported level of job satisfaction.

Table 5

Job Satisfaction Factor Score Means for Pay
Classifications Collapsed Across High and Low Growth
Periods

<u>Pay Class.</u>	<u>High M</u>	<u>Low M</u>	<u>Collapsed M</u>	<u>N</u>
Exempt	5.93	5.50	5.71	1483
Non-Exempt	5.92	5.78	5.85	1190
Hourly	6.53	6.06	6.30	5765

It is important to note that the Job Satisfaction Factor Scores throughout the study were all at a positive level across all three pay classifications. However, differences exist in the Job Satisfaction Factor Scores between groups and growth periods. Although these results, showing employees to be more satisfied during a period of corporate decline, appear to run counter to normal expectations, there may be some alternative explanations. One of the elements not controlled for is the effect of the corporation's efforts to improve the human resource aspect of the organization. Perhaps the measures of participative management, corporate information, and job recognition and reward paid some dividends in employee estimates of their job satisfaction. On the other hand, there may be a "Hawthorne" type effect occurring among employees as

the corporation attempts to integrate a human resource approach. The attention and greater concern for employees was a variable not controlled for here that may have an effect. Another possibility may be that all levels of employees are more aware of how fortunate they are just to have a job, particularly after the large corporate layoffs. Regardless of these possible influences, the data is clear that employees' job satisfaction has been significantly affected by the levels of corporate growth and by their respective pay classifications.

Difference in Job Satisfaction of the Three Employee Pay
Classifications

Question 3b: Are there significant differences in the Job Satisfaction Factor Scores of the three employee pay classifications?

The results above indicated that across pay classifications there were differences between the high and low growth periods. A second concern was whether or not there was a significant difference in Job Satisfaction Factor Scores between sets of the three pay groups. Table 6 indicates that some differences do exist in the job satisfaction level between paired

comparisons of the pay classification groups. The factor mean scores generated through the ANOVA indicated that the most highly job satisfied classification was the Exempt group (mean = 5.72), followed by the Non-Exempt (mean = 5.85), and the Hourly group (mean = 6.30). To determine if these differences were significant, Protected t-tests between pay groups were conducted. More specifically, the Protected t-tests compared (1) Exempt employee group versus the Hourly group, (2) Non-Exempt group versus the Hourly group, and (3) Exempt group versus the Non-Exempt employees.

The results of the Protected t-tests indicate that the Exempt and Non-Exempt groups are not significantly different on Job Satisfaction Factor Scores. But, both the Exempt and Non-Exempt groups are significantly more satisfied than the Hourly group. Table 6 displays the results and values of the Protected t-tests.

Table 6

Protected t-test Comparing Exempt and Hourly Employees,
Non-Exempt and Hourly Employees, and Exempt and
Non-Exempt Employees on the Job Satisfaction Factor
Score Means

<u>Paired Variable</u>	<u>Mean</u>	<u>N</u>	<u>t-value</u>	<u>P</u>
Exempt vs. Hourly	5.72 6.30	1483 5765	8.29	p<.001
Non-Exempt vs. Hourly	5.85 6.30	1190 5765	6.43	p<.001
Exempt vs. Non-Exempt	5.72 5.85	1483 1190	1.48	NS

Survey Items as Predictors of Job Satisfaction

Question 4a: What items in the corporate climate survey are the best predictors of employee Job Satisfaction Factor Scores?

Beyond understanding the relationships within the survey and the levels of job satisfaction which existed for each group, it was important to discover which items and factors served as the best predictors of Job Satisfaction Factor Scores. Although it was expected that the best item predictors would be contained in the Job Satisfaction Factor Scores, this analysis was conducted to identify specifically the best

items in the factor. The results in Table 7 identify the two items, #30 and #31, which proved to be the most significant predictors.

Item #30 states, "My work gives me a feeling of personal accomplishment," and item #31 is "My job makes good use of my skills and abilities." Together the two items account for over 91% of the variance in the job satisfaction prediction equation. Item #30 accounts for 72% of the variance while item #31 contributes the rest. This is an important finding for use of the survey because through the consideration of just two of the sixty-three items, an excellent sense of the current level of employee job satisfaction can be determined.

Table 7

Multiple Regression of Items as Predictors of Job Satisfaction

<u>Item #</u>	<u>r square</u>	<u>F to Enter</u>	<u>P</u>
30	.7215	25995.41	p<.001
30 & 31	.9102	21069.10	p<.001

Factor Scores as Predictors of Job Satisfaction

Question 4b: What factor scores in the corporate climate survey are the best predictors of Job Satisfaction Factor Scores?

In a sense, we encounter the same technical problem here encountered with the correlation earlier. The explanation is the same. This analysis used the derived factor scores instead of the full factor score regardless of loading strength. In using the newly derived factor scores, the regression is appropriate.

The results of a Stepwise Multiple Regression show that the only factor scores not in the regression equation was the Benefits Factor Scores. All of the other ten factor scores were found to be included in the prediction equation at the $p < .001$ level. It should be recognized that the significance is affected dramatically by the large sample size ($N = 8,438$). The first two factor scores Supervision and Product Quality, contributed 23.1% of the variance, while the total contribution of the ten factor scores was 30.9%.

As would be expected, the Job Satisfaction Factor Scores, specifically items 30 and 31, would be the most useful for considering job satisfaction in this survey. However, this regression analysis of factor scores does indicate that two of the factor scores, Supervision and Product Quality, contribute a relatively strong measure of variance to the prediction of the Job Satisfaction Factor Scores. Thus, studying these two factors would add two important dimensions to a concern for job satisfaction while still providing a reduced set

of information to monitor. Table 8 lists the factor scores and the relevant data from the regression.

Table 8

Multiple Regression of Factors as Predictors of Job Satisfaction Factor Scores

<u>Factor</u>	<u>r square</u>	<u>F to enter</u>	<u>P</u>
Supervision	.18886	2340.47	p<.001
Product Quality	.23102	550.98	p<.001
Dissatisfaction	.25739	356.91	p<.001
Management	.27846	293.44	p<.001
Survey	.28671	116.30	p<.001
Job Condition	.29280	86.56	p<.001
Problem Solving	.30028	107.37	p<.001
Job Information	.30493	67.21	p<.001
Minority Opp.	.30799	44.40	p<.001
Pay Satisfaction	.30912	16.38	p<.001

The full model of job satisfaction is shown below in Table 9. As shown, only the Benefit variable did not enter into the equation. With the exception of the Job Dissatisfaction Factor Scores and Problem Solving Factor Scores, which go in the opposite direction, job satisfaction increases as each factor score increases. However, for the Job Dissatisfaction Factor Scores and Problem Solving Factor Scores, job

satisfaction increases when those factor scores decrease.

Table 9

Variables In and Not In the Equation for the Stepwise Multiple Regression for the Dependent Variable of Job Satisfaction

Multiple R	.55598
r Square	.30912
Adjusted r square	.30843
Standard error	1.94452

Variables In the Equation Through Step Number 10

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>	<u>Sig T</u>
Supervision	.11068	5.55561E-03	.22467	19.923	.0000
Prod. Qual.	.25418	.01765	.13837	14.401	.0000
Job Dissat.	-.15052	8.25116E-03	-.15731	-18.242	.0000
Management	.08441	7.16230E-03	.13753	11.785	.0000
Survey	.11317	.01340	.07461	8.444	.0000
Job Cond.	.10875	.01331	.08207	8.169	.0000
Prob. Solv.	-.15759	.01348	-.11607	-11.693	.0000
Job Infor.	.16188	.02147	.07652	7.541	.0000
Min Opp.	.11635	.01827	.06124	6.368	.0000
Pay Sat.	.05360	.01324	.03786	4.047	.0001
(Constant)	2.32401	.11475		20.252	.0000

Variables Not In the Equation

<u>Variable</u>	<u>Beta In</u>	<u>Partial</u>	<u>Min Tol</u>	<u>T</u>	<u>Sig T</u>
Benefit	.01027	.01123	.49560	1.126	.2603

Differences in Job Satisfaction of Employee Pay Classifications by Year

Question 5 asked if there were significant differences in the Job Satisfaction Factor Scores from year to year within each of the pay classification

groups. Table 10 and Figure 1 report an initial consideration of the differences in the means of the three classifications by displaying the Job Satisfaction Factor Scores means of each pay classification by year.

Table 10

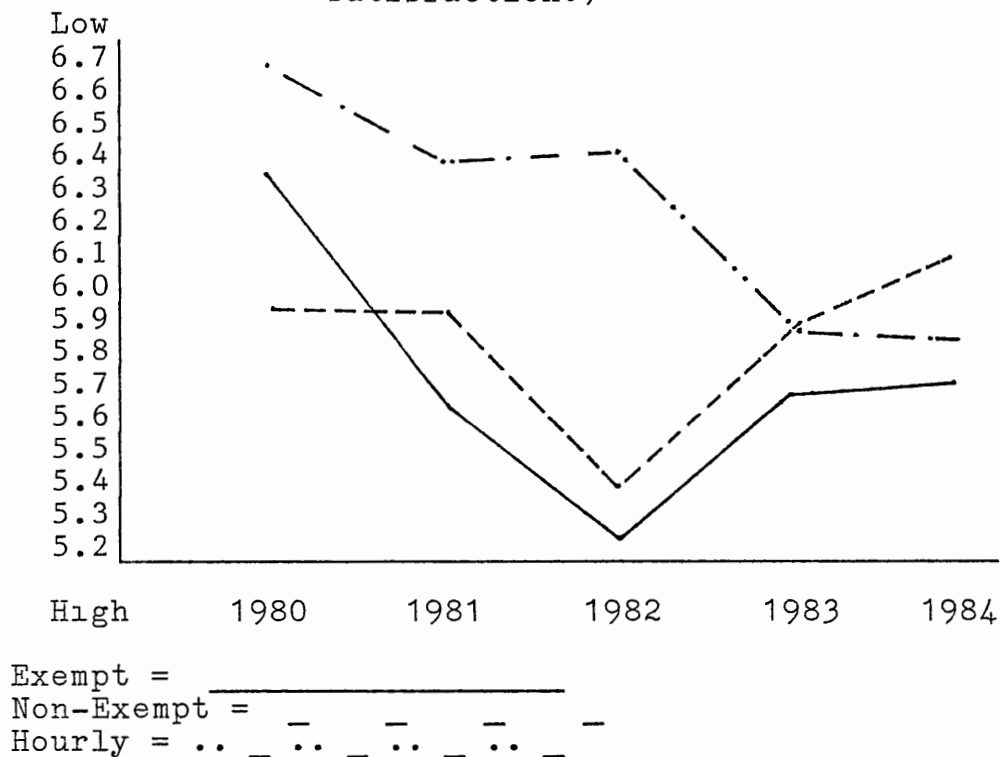
Mean Job Satisfaction Score by Pay Classification and
Year
(The lower the mean, the higher the reported
satisfaction.)

	<u>Exempt</u>	<u>N</u>	<u>Non-Exempt</u>	<u>N</u>	<u>Hourly</u>	<u>N</u>
1980	6.329	226	5.923	270	6.679	1368
1981	5.666	345	5.915	358	6.381	1411
1982	5.226	330	5.399	181	6.406	1119
1983	5.620	237	5.874	210	5.867	841
1984	5.683	345	6.073	171	5.826	1026

The year-by-year pattern shown above in Table 10 is more graphically displayed below in Figure 1 as the pattern of the year to year changes in the job satisfaction mean are shown.

Figure 1

Job Satisfaction Means by Classification and Year
 (The lower the mean, the higher the reported satisfaction.)



The issue of whether the level of job satisfaction differed from year to year within a pay classification was an attempt to further understand the changes which were taking place in the corporation and being reflected in the survey. The facts that a) the pay classification of employees had a significant effect on the Job Satisfaction Factor Scores and b) the Exempt and non-Exempt groups were significantly different from the Hourly group provided the departure point for considering the differences in Job Satisfaction Factor

Scores over the years of the survey. As Table 10 and Figure 1 indicate, each pay classification reported a different level of Job Satisfaction Factor Scores from year to year. The strongest level of job satisfaction for the Exempt and Non-Exempt groups was in 1982, while the job satisfaction level of Hourly workers found its strongest level in 1984. Since 1980 the general level of job satisfaction for all three groups has improved, but only the Hourly group has displayed a continual pattern of improvement through 1984.

However, the most striking feature of Figure 1 is the similarity of the pattern for the Exempt and Non-Exempt groups when compared to the pattern of the Hourly workers. It appears that something distinctly different was occurring in the perceptions of the Hourly employees, particularly in 1982. Although the Exempt and Non-Exempt group experienced strong improvements in job satisfaction in 1982, the Hourly group was nearly at its weakest level. This may be an indication of the first signs of the reduction occurring at the factory level. Layoffs and cutbacks tend to impact the manufacturing levels first and then move through the organization. This occurred also before the attempt to emphasize the human resource program of the corporation. Since that point in 1982, however, the improvement in job satisfaction has been confined to the Hourly group

while the other two groups have experienced a slight decrease in the reported job satisfaction. Overall, there has been a regression toward the mean in job satisfaction across the corporation as the pay groups, beginning in 1983, have reported more similar levels of job satisfaction.

Table 11 displays the results of the analysis of variance which tested to determine if significant differences existed between the pay classifications and across the years. The results show that there was a significant interaction of the years by pay classification so that the overall differences visible in Figure 1 were shown to be significant. Table 11 gives the results of the ANOVA for the interaction of the years and pay classifications on job satisfaction.

Table 11

Analysis of Variance for Job Satisfaction by Years and
Pay Classifications

<u>Effect</u>	<u>MS</u>	<u>DF</u>	<u>F</u>	<u>P</u>
Year by Pay Class.	4.992	8/8423	7.743	p<.001

The significant results of the ANOVA above, showing the interaction effect between year and pay classification on Job Satisfaction Factor Scores, set

the stage for consideration of the ANOVA by years. This procedure was designed to determine if there were a significant difference in the pay classifications across the years.

The results showed in Table 12 that when all three groups were considered, there was indeed a significant difference in the Job Satisfaction Factor Scores of the three pay groups for the years 1980, 1981, and 1982. However, for the years 1983 and 1984 the three groups, when considered together, were not found to be significantly different in their job satisfaction factor scores. Table 12 displays the results of the ANOVA for the year by year analysis of the job satisfaction mean of all three employee groups.

Table 12

ANOVA to Test Differences in Job Satisfaction Factor Scores Among Pay Classifications Groups by Year

<u>Year</u>	<u>MS</u>	<u>DF</u>	<u>F</u>	<u>P</u>
1980	4.709	2/1861	14.788	p<.001
1981	4.828	2/2111	17.905	p<.001
1982	5.927	2/1627	37.331	p<.001
1983	5.007	2/1285	1.194	NS
1984	4.560	2/1539	1.917	NS

Difference in Job Satisfaction of Exempt Employees by
Year

Question 5a: Is there a significant difference in the Job Satisfaction Factor Scores of Exempt employees between the years 1980 through 1984?

Significant differences existed among the pay classifications for only three of the years, and Table 12 provided one way to look at the differences. A specific concern in Question 5 dealt with whether there was a significant difference in the Job Satisfaction Factor Scores of each employee pay group from year to year. In order to approach this question, the means from the ANOVA calculated for each year were used to calculate t-values between the specific years of the survey.

Table 13 reflects the results of Protected t-tests for Exempt employees calculated from the Job Satisfaction Factor Score means generated in the ANOVA for each year. The results indicate that for Exempt employees on Job Satisfaction Factor Scores, the changes from 1980 to 1981, 1981 to 1982, 1982 to 1983, and from 1980 to 1984 were all significantly different. The change for Exempt employees from 1983 to 1984, however, was not significant as the Job Satisfaction Factor Score mean increased slightly, revealing a less satisfied

report in 1984 than there had been for 1983.

Analysis of the first three years revealed that Exempt employees changed their reported job satisfaction in a statistically significant amount. In each of the first two paired comparisons from 1980 to 1982 the job satisfaction showed a significant improvement. However, the significant change between 1982 and 1983 was a decline in the level of job satisfaction being reported by the Exempt employees. The final paired years, 1983 to 1984, indicated a stabilizing period in the rating of job satisfaction as the change proved not to be significantly different.

For the long run, an important point to consider here is that the 1984 rating is significantly better than the 1980 rating, reflecting a stronger job satisfaction rating. Although the improvement has slowed in the 1984 report, and in spite of difficult corporate times, the job satisfaction level reported by Exempt employees has improved since the first collection of data in 1980. This should have been good news for a corporation who set out to strengthen its employee job satisfaction in the midst of economic difficulties and reduced employee benefits.

Table 13 shows the results of the Protected t-tests which paired the years of the Job Satisfaction Factor Score means for the Exempt employees.

Table 13

Protected t-tests Pairing Exempt Employees by Years

<u>Years</u>	<u>Mean</u>	<u>t-Value</u>	<u>P</u>
1980 & 1981	6.329 5.666	7.09	p<.001
1981 & 1982	5.666 5.226	5.12	p<.001
1982 & 1983	5.226 5.620	4.19	p<.001
1983 & 1984	5.620 5.683	.68	NS
1980 & 1984	6.329 5.683	6.91	p<.001

Difference in Job Satisfaction of Non-Exempt Employees
by Year

Question 5b: Is there a significant difference in the Job Satisfaction Factor Scores of Non-Exempt employees between the years 1980 through 1984?

The differences in the Job Satisfaction Factor Scores of Non-Exempt employees across years was also tested to determine if the year-to-year changes in job satisfaction were significant. In each case, two

consecutive years were compared and a final comparison was made between 1980 and 1984. The results in Table 14 indicate that the Non-Exempt employees had only two sets of years where a significant difference existed between the reported Job Satisfaction Factor Scores. The comparison for 1981 to 1982 and 1982 to 1983 were both significant at $p < .001$, but in different directions. The change from 1981 to 1982 was a significant improvement in the Job Satisfaction Factor Scores as the mean improved from 5.915 to 5.399. However, the change the next year from 1982 to 1983 showed a significant decline in the Job Satisfaction Factor Scores as the mean moved from 5.399 to 5.874.

In considering the means and the results of the Protected t-tests, it appears that the Job Satisfaction Factor Scores of the Non-Exempt employees has been relatively stable except for 1982 when there was the significant improvement followed by the 1983 return to the previous level. As Table 14 shows, there was virtually no change in the job satisfaction level from 1980 with a mean of 5.923 to 1984 with a mean of 6.083. The 1982 year, however, was a distinctly different year as the higher job satisfaction was reported. The apparent reason for that distinction, however is not obvious through this analysis.

Results displayed in Table 14 indicate the

significant difference between years 1981-1982 and 1982-1983 for the Job Satisfaction Factor Scores of Non-Exempt employees.

Table 14

Protected t-tests Pairing Non-Exempt Employees by Years

<u>Years</u>	<u>Mean</u>	<u>t-Value</u>	<u>P</u>
1980 & 1981	5.923 5.915	.89	NS
1981 & 1982	5.915 5.399	5.36	p<.001
1982 & 1983	5.399 5.874	4.20	p<.001
1983 & 1984	5.874 6.073	1.73	NS
1980 & 1984	5.923 6.083	1.41	NS

Difference in Job Satisfaction of Hourly Employees by
Year

Question 5c: Is there a significant difference in the Job Satisfaction Factor Scores of Hourly employees between the years 1980 through 1984?

The results of the Protected t-tests for Hourly employees on the Job Satisfaction Factor Score means

indicated that there were three sets of significantly different years. The change from 1980 to 1981 showed a significant improvement, at the $p < .001$ level, in the reported job satisfaction as the mean moved from 6.679 to 6.381. With the next set of years, 1981 to 1982, there was not a significant change as the mean moved from 6.381 to 6.406. However, the period 1982 to 1983 recorded a significant strengthening of job satisfaction at $p < .001$ level as the mean improved from 6.406 to 5.867. After that significant change, the 1983 to 1984 comparison reveals a nearly stable job satisfaction report with means of 5.867 and 5.826 respectively. Although the mean showed an improvement toward a stronger job satisfaction report, the change was small and not statistically significant.

The longer term view, however, showed a significantly stronger job satisfaction report in 1984 than there was in 1980. Overall, the mean improved from 6.679 to 5.826 and reflected consistent improvement in the reported rating of job satisfaction among Hourly employees. Although the reasons for this improvement are not clear by this investigation, the goal of the corporation to improve job satisfaction appears to be obtaining positive results.

The data in Table 15 shows the results on Job Satisfaction Factor Score means for Hourly employees by

year.

Table 15

Protected t-test Pairing Hourly Employees by Years

<u>Years</u>	<u>Mean</u>	<u>T-Value</u>	<u>p</u>
1980 & 1981	6.679 6.381	7.03	p<.001
1981 & 1982	6.381 6.406	.56	NS
1982 & 1983	6.406 5.867	10.68	p<.001
1983 & 1984	5.867 5.826	.79	NS
1980 & 1984	6.679 5.826	18.68	p<.001

Overview of Results

In conclusion, the results of this study may be summarized as follows.

1. Twelve (12) distinct factors emerged from the factor analysis of the survey instrument. The factors were named Supervision, Management, Job Satisfaction, Benefits, Dissatisfaction, Job Conditions, The Survey, Product Quality, Problem Solving, Job Information, Pay Satisfaction, and Minority Opportunity.

Through the analysis, 45 of the 63 survey items loaded into one of the twelve factors by obtaining a factor score of at least .50.

2. Significant correlations at the $p < .001$ level were found between the Job Satisfaction Factor Scores and each of the other eleven factor scores from the survey.

3. When considered separately, both Pay Classification of the workers and the levels of Corporate Growth (high and low) had a significant effect on the reported job satisfaction of employees.

4. There was a significant difference in the Job Satisfaction Factor Scores mean between the Exempt group and the Hourly group. In both cases the Hourly group had the weaker level of reported job satisfaction. There was no significant difference between the Exempt and Non-Exempt groups.

5. The items which were the best predictors of the Job Satisfaction Factor Scores were items #30 "My work gives me a feeling of personal accomplishment," and #31 "My job makes good use of my skills and abilities." Together, the two items accounted for over 91% of the variance in the prediction equation.

6. Ten of the eleven factor scores were significant predictors of the job satisfaction factor. Only the Benefits Factor Scores were not a significant

predictor of Job Satisfaction Factor Scores.

7. There was a significant difference in Job Satisfaction Factor Scores for Exempt employees between the years 1980-1981, 1981-1982, 1982-1983, and overall between 1980-1984. Only the paired years of 1983-1984 showed no significant change in the reported job satisfaction.

8. The Non-Exempt employees differed significantly in Job Satisfaction Factor Scores between the paired years of 1981-1982 and 1982-1983. No other year-to-year comparisons showed a significant difference.

9. Hourly employees reported Job Satisfaction Factor Scores which were significantly different for the paired years of 1980-1981, 1982-1983, and between 1980-1984.

The conclusions reached from the above results are discussed in the following chapter.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The primary purpose of this study was to analyze an industrial corporation's employee climate survey in terms of job satisfaction in order to understand the survey and what it revealed about the organization. The emphasis on job satisfaction was considered in order to discover changes that occurred across a turbulent five year period in the corporation's history. During that period the corporation experienced two years (1980 and 1981) of record growth, profit, and sales followed by three years (1982, 1983, and 1984) of low growth and decline in sales, profits, and employment. This distinct and unique organizational situation provided the foundation for consideration of the effects of corporate growth, pay-work classifications, and time upon job satisfaction, which was defined in this study as the job satisfaction factor score. Furthermore, a greater understanding of the survey instrument was

accomplished.

This chapter focuses on a discussion of the conclusions made from the results reported in Chapter Four, recommendations for corporate use of the results, recommendations for further study, and the limitations of the study.

Conclusions and Discussion

I. Job satisfaction varies across time and across work groups.

A. Pay classification groups have different levels of job satisfaction across time.

An obvious aspect of the findings is that job satisfaction is not a stable concept (Figure 1) within a pay classification group. Significant changes occurred in the Job Satisfaction Factor Scores in four of the five paired years for the Exempt group, two of five for the Non-Exempt, and three of five for the Hourly group.

It would be unlikely that employees would report identical levels of job satisfaction from year to year. However, the significant changes that occurred within each group do raise the possibility that the occurrences in the corporation and the perceptions of them by

employees did influence their job satisfaction. On the other hand, when the levels of job satisfaction are all on the positive end of the scale throughout the study, some fluctuation within that positive range should not be alarming. Corporate events likely influence the reports of job satisfaction, but the variation of satisfaction would be of much greater concern if the change resulted in strongly negative scores. The variation does suggest that job satisfaction is best considered over time and not simply on a snapshot basis where year to year changes, even significant ones, are adjustments rather than trends. This variability does raise the value, however, of a precise charting of the occurrences in the corporation. Once corporate events are charted, their impact upon job satisfaction can more easily be studied.

B. The pattern of change in job satisfaction is different for employee pay classification groups across time.

Job satisfaction is not identically experienced across the total organization. The first three years indicated significantly different Job Satisfaction Factor Scores among the three groups but was followed by two years of non-significant difference.

Obviously, there are particular situations and factors which influence employees differently. Individuals who are in the factory production activities (Hourly) perform different tasks, have different training, and no doubt form different perceptions of and expectations for the organization than do the managers (Exempt) or clerical staff employees (Non-Exempt). The problems faced by each group and their expectations for the job are likely to differ, as would their reactions to growth and decline in the organization.

Although no specific cause of these differences can be found in the data, the earlier finding on the influence of supervision upon the employee's job satisfaction leads to the possibility that proximity to and contact with managers, experienced by Exempt and Non-Exempt employees, could have an effect on job satisfaction. Both Exempt and Non-Exempt employees are smaller groups than the Hourly group, and the nature of their tasks requires frequent contact and interaction, thus providing the opportunity for an enhancement of the individual-supervisor relationship and perhaps of job satisfaction. This situation may provide for more individual recognition and job related accomplishment which is an important element in job satisfaction.

Not only do the groups differ, but the pattern of satisfaction differs. The Hourly workers are the

only group to have a nearly continual pattern of improvement in job satisfaction. The other two groups improve then weaken across the period of the study. According to the Human Resource officer of the organization, the Hourly group was the only group to consistently receive the focus of the human resource efforts. Perhaps, over time the efforts and attention focused on the Hourly group began to yield consistent dividends in terms of job satisfaction. On the other hand, the immediate human resource attention given during 1982 may have created expectations for the Exempt and Non-Exempt employees which were not fulfilled over time, and as a result, their satisfaction levels improved for a while but weakened over time.

1. In 1982, the Hourly employees experienced something distinctly different than the Exempt and Non-Exempt employees in job satisfaction.

At the beginning of the decline and low growth period, 1982, both the Exempt and Non-Exempt employees recorded their strongest level of job satisfaction. However, that same year the Hourly workers reported the second weakest level of job satisfaction. The impact of the declines and layoffs perhaps had more immediate impact on the hourly factory workers as the corporation

moved to reduce costs. Without a valid method to associate the change in satisfaction to a specific series of events in the corporation, it is difficult to establish a reason for this difference. This may have only been a high and low point in the normal fluctuation of satisfaction coincidentally occurring with the period of decline, or it may have been the first signal of change in the respective work groups. The human resource efforts focused on the Hourly group in the two subsequent years provide interesting speculation when the improvement in job satisfaction by Hourly workers is considered. Perhaps the difficult first days of the decline were improved by the efforts to involve and recognize Hourly workers in participative ways. On the other hand, the decline may have signaled the end of familiar work patterns for managers and even some clerical staff as they were directed to delegate and involve Hourly workers in ways they had not previously used, thus resulting in a weakening of their satisfaction. Additionally, the reductions in management and staff positions could have resulted in a sense of lost opportunity for future advancement among the Exempt and Non-Exempt employee groups, thus affecting their job satisfaction.

2. The pattern of change slowed from 1983 to

1984 and a stabilization of job satisfaction occurred in all three pay classification groups.

In the five years of the study, this was the only year in which all three groups experienced so little change that it was not significant. Perhaps this was an indication that the upheaval in the corporation was beginning to subside and all three groups were reaching a steady state. On the other hand, the consideration of satisfaction over time would require a look at subsequent years to determine if a stabilized level had in fact been reached. This is an item which should be watched over time to establish whether or not stabilization is a trend.

C. Employees were more satisfied during the low corporate growth period than they were during the high corporate growth period.

Corporate growth did have a significant effect on Job Satisfaction Factor Scores. In this study corporate growth was divided into a high growth period, 1980 and 1981, and a low growth period, 1982, 1983, and 1984. The interest in studying the effect of growth on job satisfaction was due to the distinct change that occurred in the corporation during those two periods, as

well as the reality that other organizations experience dramatic changes in their growth patterns from time to time.

As reported, the overall Job Satisfaction Factor Scores were stronger for each pay classification group during the low corporate growth period. Upon immediate review, this finding appears unusual. There is a near folklore feeling that as the company goes, so go the employees. How can job satisfaction improve when the company's sales are down, salary increases have been reduced, benefits have been cut, and thousands of jobs have been eliminated? Those conditions hardly seem consistent with the popular ideas of a successful organization.

Obviously, the data does not reveal any conclusive indication as to the reason for this result. However, some possible contributors should be considered. First, with the large number of layoffs, 25% of corporate employment between 1981 and 1984, the remaining employees may tend to be thankful for having their job. Perhaps the realization that so many others had lost employment changed some expectations about the job and lessened the amount of recognition and accomplishment desired from the job setting. The discrepancy theory (Porter, 1961, and Locke 1969) indicates that satisfaction is the difference between

the outcomes received and those one expects. With decline so obvious to the remaining employees, the expectations may have been reduced by those who remained.

However, the reduction of expectations seems an unlikely condition to be sustained over time unless the expectations of the employee and the company can be matched satisfactorily in the employee's perception. As the individual's demands come into focus through the daily routine of performing the job, the fact that someone else lost a job blurs into the past. Although the adjustment of expectations may be a factor, it would be a temporary solution unless the expectations were grounded in a more permanent context than just having a job. However, this temporary adjustment idea holds some possibility when the scores reported in Figure 1 are reviewed. The strongest level of job satisfaction for both the Exempt and Non-Exempt employees is the first year of the crisis. During the following two years both groups experience weaker levels of job satisfaction and, although the Exempt group had a stronger level of satisfaction in 1984 than it did in 1980, the Non-Exempt employees actually were weaker in satisfaction in 1984 than they were at the beginning. This dramatic drop in 1982 was partly responsible for the significantly higher overall level of job satisfaction for the low growth

period.

A second possibility is that the employees who were laid-off were the most dissatisfied ones. The result is that the mismatched, dissatisfied employees were the first to be released, thus leaving the more satisfied to remain on the job. If this were true, the resulting higher satisfaction scores would be easily explained. Although this may have occurred in some cases, it is unlikely that the improvement in satisfaction was exclusively the result of this kind of selective departure. Therefore, it is not probable that this could be a strong factor in the resulting job satisfaction scores during the low growth period.

A third, yet untested, possibility is that the human resource efforts begun by the corporation as it moved into the low growth period had some effect either individually or in combination with other possibilities. The goal of the human resource efforts to recognize employees, increase their involvement, and build a sense of work accomplishment would be a desired cause of the improvement in job satisfaction. However, to definitely conclude that these efforts were the cause of the improvement would be irresponsible at this point. Further testing of specific human resource efforts must occur before a conclusion of this nature could be proposed. The human resource efforts, however, should

have a positive effect on job satisfaction. The actions taken by the corporation to involve and develop the human resources of the company should be expected to reduce discrepancy, match expectations, improve involvement between employees and supervisors, and create a climate which is more supportive of job satisfaction.

D. The changes in job satisfaction during the low growth period were a result of both the corporate crisis and the human resource efforts.

The results indicate that as a whole, the employees were more satisfied during the time of low corporate growth than they were during the time of high growth. While the results indicate this, it is important to note in Figure 1 that the strong improvement in satisfaction for the Exempt and Non-Exempt groups in 1982 and the Hourly group in 1983 appears to have heavily weighted the results for the low growth years in favor of a stronger level of job satisfaction. Why these strong improvements occurred is not indicated precisely by the data. However, the researcher believes that some possible causes of the results should be considered.

Initially, the sudden and dramatic change in the

growth of the company, precipitating reductions and layoffs, actually brought into focus the worker's individual job and the importance of doing that job well. In a sense, it was a survival behavior mode which motivated the employee to strive to prove the necessity of his job to the company and its future. As a result, a new focus on the job was created and its value to the worker increased. However, over the long term this crisis focus alone was not sufficient to maintain improved satisfaction. At this point, a key factor entered the corporate scene. The human resource efforts were implemented across the corporation. For the Hourly workers it meant an opportunity to participate and become involved in the organization in ways they had not previously experienced. Communication with supervisors increased through participation groups and quality circles. Efforts to recognize worker accomplishments and productivity gains were emphasized through corporate newsletters and company bulletins. In short, the previous short term crisis focus on the job had now given way to longer term measures developing the human resources within the job. Now the employee had a more direct impact in the future of his work place and was able to gain a sense of accomplishment from both the work and the process of involvement surrounding the work. As a result, the Hourly workers showed a

continued pattern of improvement in job satisfaction across the study.

On the other hand, the Exempt and Non-Exempt workers showed a strongly significant improvement in job satisfaction in 1982 followed by a weakening of satisfaction in 1983 and 1984. The results indicate that the crisis focus of the corporation again emphasized survival and perhaps even reduced the job expectations of many individuals. In effect it took less to be satisfied on the job because having a job and contributing through it was of greater importance than other concerns. However, as the crisis began to stabilize in 1983 and 1984, the human resource efforts affected these two groups differently than the Hourly group. Rather than being highly involved in the human resource efforts as the Hourly workers were, these two groups did not have the human resource efforts extended toward them. The efforts toward participation and recognition were primarily directed toward the Hourly workers. In effect, the Exempt employees had to give up some of their control and autonomy by involving the Hourly workers in participative management, while not having the opportunity to enjoy the same benefits with their own superiors. Although some gain still occurred because of their participation with the Hourly workers, some of the strength of the gain was lost because of the

failure to involve the Exempt group in human resource efforts of their own. Additionally, the Non-Exempt (clerical staff) workers, with the exception of 1982, showed a nearly stable level of satisfaction across the study. The crisis of 1982 had an effect on these workers through the crisis focus and the need to survive. However, these workers had no participation in the human resource efforts as a participant or as a manager. The result was a return to the previous levels of life on the job and their expectations for it.

In summary, it is believed that the crisis had the effect of reducing expectations for those who remained in the corporation over the short term, but that the longer term improvements were a result of the corporation's efforts to institute human resource efforts, particularly at the Hourly work group level.

II. Job Satisfaction is a multidimensional concept which develops between the individual and the work climate existing for that individual.

A. Job satisfaction occurs when the worker's expectations for the job are sufficiently met in terms of his feeling of personal accomplishment, when his job is matched to his personal skills and abilities, when a quality product is produced, and when a climate of

communication openness exists between the worker and the supervisor.

Job satisfaction was defined in Chapter Two as "a multi-dimensional concept which develops between the individual and the work climate existing for that individual." Based on this study, the key dimensions which create job satisfaction for the individual in his work climate are (1) the worker must feel a sense of personal accomplishment through the work being performed, (2) the worker must believe that the job is well matched to his personal skills and abilities, (3) the supervisor and the worker must develop an openness in communication which allows information to flow both up and down the relationship in regard to performance, the product, and the work situation, and (4) the worker must have a sense of pride in the quality of the product being produced.

This position brings together some of the previous work on job satisfaction. Specifically, the sense of personal accomplishment by the worker reflects Herzberg's (1959) intrinsic aspect of job satisfaction by relating satisfaction to the work itself and the achievement recognition of the job. Additionally, Locke (1970), Sutermeister (1971), and Lawler and Porter (1967) concluded that the performance aspect of the job

was the cause of satisfaction. Finally, Rings, Stinson, and Johnson (1979) and Falcione (1976) support the role of communication between the supervisor and worker as having a positive effect on satisfaction.

Personal accomplishment is without question the single most significant aspect of job satisfaction (based on the definition of job satisfaction as the job satisfaction factor score) revealed in this study. This sense of personal accomplishment cannot be a management imposed concept but rather, it is the internal belief which occurs in the individual as a response to the work being performed. However, another important component is the worker's belief that his personal skills and abilities are being well utilized in the job he is doing. This component is a key responsibility of supervision and management. If a worker is mismatched to his job and the supervisor fails to recognize it, the worker will struggle to gain a sense of accomplishment and pride in the work being done. Workers must believe that their supervisors are concerned about them and are striving to fairly utilize the workers' abilities and skills. This feeling is created through the communication between the worker and the supervisor as well as the actions taken by the supervisor on the job. Therefore, job satisfaction is a multidimensional concept developed by the individual in the context of

his work climate.

B. The intrinsic aspect of the employee's job is a significant factor and predictor in job satisfaction.

1. The employee's feeling of accomplishment on the job is the most significant dimension of job satisfaction.

As noted in Chapter Two, Herzberg's theory rested in the idea that there were intrinsic motivations in the work climate that created job satisfaction within the individual. These intrinsic aspects included the work itself and the achievement and recognition received through the job. The regression analysis indicated that items #30 and #31 were both significant predictors of the job satisfaction factor score. Item #30 alone accounted for over 72% of the variance in the prediction equation. This item is important to consider in light of the intrinsic motivation issue. As reported, item #30 expresses the individual's feeling of accomplishment derived from the job. As Herzberg's ideas would indicate, this is an intrinsic aspect of the job. The sense of accomplishment is obviously the dominant element in predicting job satisfaction as defined in

this study. As such, this finding appears to give support to Herzberg's theory related to satisfaction gained through intrinsic factors.

In addition, Nadler (1979) indicated that feedback given to the group, regarding the group, would have the potential to enhance the group's motivation and performance. Further, Downs, Johnson, and Barge (1984) conclude that more effective performance is always associated with feedback. Thus, if feedback about performance can enhance performance, feedback strategies designed to recognize the accomplishments of employees should in turn positively enhance the individual's level of job satisfaction and provide further motivation for performance.

2. The organizational climate factors of Supervision and Product Quality are the most important factors for predicting job satisfaction.

The two factor scores which most strongly contributed to the prediction of Job Satisfaction Factor Scores were Supervision and Product Quality. If the relationship between intrinsic motivation theory and achievement are pursued here, it is obvious that the ability of supervisors to give recognition is an important factor for strengthening job satisfaction.

The direct daily contact of supervisors who provide direction, instruction, and recognition to employees should be a potentially potent force in developing employee job satisfaction.

Further, the product quality is perhaps the ultimate proof of personal accomplishment. What the employee does is directly linked to the final product quality. It is at the product quality level that the obvious accomplishments can become visible to all levels of employees. Although the hourly workers are perhaps the most directly involved with the product, the responsibility and investment of the management and professional staffs are extremely important to the final product production and quality. Thus, the accomplishments of the employees are directed, enhanced through the relationship with the supervisor, and fulfilled in the quality of the product produced. Positive fulfillment of these factors leads to job satisfaction in the reports of the employees.

Therefore, improved contact and feedback with supervisors regarding the employee's work situation, performance, and accomplishments should be useful in strengthening job satisfaction. As the interactions are developed, communication regarding the quality of the products produced would be valuable for all workers to receive so that an accurate perception of their final

work can be known. Naturally, supervisors are the primary link between the employee and the corporate management. Thus, the effectiveness of supervisors in communicating performance-product related information to the employee is a key component in the development of job satisfaction.

III. Job satisfaction and job dissatisfaction are distinct concepts.

The survey includes two distinct factors related to satisfaction. Job satisfaction reflects the positive characteristics related to the job while dissatisfaction reflected the desire to leave the corporation or feel too much pressure on the job. It should not be assumed that the same issues which satisfy also dissatisfy. There is value in being able to monitor both ends of the continuum and design strategies which impact each. This finding supports Herzberg's belief that in addition to factors which satisfied, there were dissatisfiers at work in the climate of the individual.

IV. The corporate employee climate survey is a useful tool to monitor employee job satisfaction.

A. The survey can be more efficiently used by factoring it into twelve factors and the 45 items comprising those factors.

The factor analysis enables a survey user to more efficiently consider the information of the survey by concentrating on twelve key factors rather than many individual items. The distinct factors identify important issues within the organizational climate that can be used to understand the employee's perception of the organization currently and over time. Additionally, the current sixty-three items could be reduced to the forty-five items which loaded into one of the twelve factors. This reduction would not eliminate any key concept from the survey but would reduce the amount of time required to complete it. The time demands of survey users should necessitate as streamlined a survey as possible so that the key concepts are easily identified and used. If other key items are needed for feedback they could be added to the forty-five in a carefully planned manner so that the survey is not cluttered with unnecessary or useless items.

B. The Job Satisfaction Factor Score is the best measure of job satisfaction for this corporate survey.

The measure of job satisfaction for this study was the factor scores that emerged in the factor analysis of the significantly loaded survey items. The immediate question to answer regarding this definition of job satisfaction is, "Why this definition rather than another?" According to the review of the literature in Chapter 2, there is not a singular definition of job satisfaction that has wide acceptance. In most studies the definition of job satisfaction is defined by the scale that is in use in the research, and several different scales have been used. If, as the definition summary of Chapter 2 suggests, job satisfaction is a multi-dimensional concept which develops in the interaction between the individual and the work climate existing for that individual, and the individual responds to those factors within the self and the work climate as a whole, then how should job satisfaction be measured? Brayfield and Rothe (1951) stated that the desirable attributes of a scale should include (1) an index to overall job satisfaction rather than to specific aspects of the job situation, (2) an applicability to a wide variety of jobs, (3) a

sensitivity to variations in attitudes, and (4) the possibility to evoke cooperation from both management and employees.

The factor, although not a complete or perfect representation of a multi-faceted definition of job satisfaction, does provide a broad view of job satisfaction rather than a task specific reflection. In doing so, the items of the factor are applicable to the wide variety of jobs and job classifications occurring in the corporation under study. The five point scale used to record the responses gives the opportunity to respond to the variations of attitudes held by employees, and therefore, to monitor changes which occur over time. As a result of the recording of attitudes over time, this definition of job satisfaction can be used to develop a cooperative understanding and dialogue among the employees and management about the concerns related to job satisfaction.

In summary, the items in the factor do reflect the basic concerns of a scaled definition of job satisfaction, and, when compared to the other factors generated, do give the best representation of the issues of job satisfaction available for this study. Therefore, for this corporate survey and this study, the concept of job satisfaction was defined by the job satisfaction factor scores identified from the factor

analysis of the survey items.

C. Employees want to express their attitudes about the work climate and view the survey as a positive activity.

The items of the survey factored into twelve concerns which can be efficiently used to monitor changes and trends in the organization. The broad scope of the factors provides insight into several aspects of the organization's climate and enables one to study specific work levels in the organization. Further, the results of the survey are useful as the basis for discussion and task force groups to address specific concerns raised through the survey. Action taken by the task forces and the corporation can then be monitored in future surveys as new policies or procedures are implemented. The value of this survey feedback is that it can be tied to specific events and changes in the corporation to provide a method to measure the impact of changes in the organization.

An additional strength of the survey is the favorable response of employees toward it as well as their desire to have future surveys. The feeling that the survey is a good way to communicate to management is an important advantage that the corporation should

strive to maintain. This feeling is likely to grow as the employees are able to attribute specific results to the information gained by management from the survey.

Recommendations for the Corporation

Given the above findings, the following recommendations are offered to assist the corporation in more effectively using future survey results:

1. The 63 item survey should be reduced to the 45 items which loaded significantly into the twelve factors described in this study.

2. Items should be added to the survey which potentially measure job dissatisfaction by stating the inverse of the job satisfaction items. The items would be: I dislike the kind of work I do; My work does not give me a feeling of personal accomplishment; My job does not make good use of my skills and abilities; and Overall, I am dissatisfied with my job. This inverse measure would provide an opportunity to determine the clarity and strength of the job satisfaction report by testing whether the two measures correlate in a strongly negative manner.

3. Strategies should be developed to identify, record, and study the specific human resource efforts occurring at each pay classification level so that

associations between changes in job satisfaction and specific human resource efforts can be accomplished. This design would assist in determining which human resource activities are most effective in enhancing job satisfaction.

4. Specific events occurring in the corporation should be identified and recorded in order to study their effect on the level of job satisfaction from year to year. Examples of such events are: changes in pay, changes in benefits, staff reductions, staff increases, introduction of new procedures, new products, and changes in supervisory personnel.

5. Strategies should be developed to ensure regular feedback between the supervisor and the employee relative to the employee's job performance. Specific recognition of the accomplishments of the employee, particularly job related, should be made whenever the event occurs.

6. Information on the product quality and its use and success in the workplace should be regularly provided to the employees so that their knowledge of the product's performance is accurate and timely.

7. Care should be taken to accurately match the skills and abilities of the employee with the job assigned. This matching not only is an important factor in predicting job satisfaction but greatly enhances the

potential for personal accomplishment on the job, a highly important satisfaction concern. This function might also include making it easy to transfer or be transferred to another work assignment which would better match the skills and abilities of the employee.

8. Human resource efforts should be applied across all levels of the corporation and through all pay classifications. There is potential for the Non-Exempt employees to be overlooked in a production oriented corporation. The human resource efforts should developed and implemented as widely as possible.

9. Corporate managers should use scores from the survey factors to more easily track changes in their management groups and specific companies. Changes over time should be monitored and assessed for specific companies in the corporation as the managers and employees relate local events and human resource efforts to the changes which are reflected in the survey results.

10. Based on the variability in job satisfaction, consideration should be given to establishing ranges of job satisfaction for each pay classification group. A range of reported scores would allow for minor fluctuations while structuring limits beyond which greater concern should be exercised. The use of a range for standard job satisfaction levels

would also enable the corporation to establish an indication of the trend of reported job satisfaction in relation to specific events and circumstances influencing the corporation (for example the low growth, high growth periods of this study).

Recommendations for Further Study

This study was an exploratory study which attempted to discover elements of a specific corporate situation which could assist managers in using the information contained in the survey. However, some issues have arisen which call for further investigation to more clearly define the role and impact of factors and events which occurred. Therefore, the following recommendations are given for further study:

1. An experimental research study across time should be conducted in an industrial corporation to determine the effect of specific human resource efforts on the job satisfaction levels of employees throughout the corporation. The need to identify the more precise effects of human resource efforts has been demonstrated by the present research. Specific human resource measures implemented and tested against a control group in the same organization would assist in clarifying the speculation regarding the influence of human resource

efforts on employee job satisfaction.

2. An aspect of job satisfaction revealed in this study was the relationship between the supervisor and the employee, particularly in terms of their communication openness. If the relationship is important to job satisfaction, perhaps the size of the work group for which the supervisor is responsible is an important dimension of that relationship. The effect of the size of the work group responsible to a manager should be studied to determine if size of the group facilitates or hinders the development of openness in communication and job satisfaction. A study in an organization where variously sized groups are naturally occurring would provide an excellent setting for the study.

3. Controlled experimental tests should be conducted to determine which work related accomplishments are the most effective in enhancing job satisfaction at each of the three job classification levels. With the significant influence indicated for the feeling of job accomplishments, a determination of the dimensions of accomplishments on the job could provide useful information for more precisely studying job satisfaction. Are there particular recognition or motivation strategies that facilitate the sense of accomplishment? Once determined, job satisfaction

should be more fully understood in relation to job accomplishments by the employee.

Limitations of the Study

This study is subject to several limitations, due mainly to the limitations of the situation in which the study was conducted.

1. Because the study was conducted after the survey was designed and the data was collected, there was no researcher control over the structure or conditions of data collection. Thus, extraneous conditions, such as time and place of administration, may have influenced the reporting of the data.

2. The definition of job satisfaction was not a previously established definition, but one generated from the factor analysis of the survey data. The preciseness of the definition is limited because of the creation of the factor score from only the significantly loaded items rather than the use of the total factor. Thus, the factor score is not the total factor. Therefore, its ability to exactly reflect the job satisfaction of employees is uncertain, particularly since future factor analyses may alter the items included in the job satisfaction factor.

3. The inability to identify distinct human

resource efforts taken by the corporation at specific times across the study limited the possibility of clearly relating changes in job satisfaction with those events.

4. It is unlikely that the two periods of corporate growth were distinctly separated by the calendar break between 1981 and 1982. Even though the corporation in general experienced a rather distinct break, it is not possible to assume that every company experienced a simultaneous break in growth pattern as distinct as the change from one year to the next.

5. The nature of the data does not allow clear causal statements to be made regarding the changes in job satisfaction in general or within work groups.

REFERENCES

References

- Albrecht, T. L. The role of communication in perceptions of organizational climate. In D. Nimmo (Ed.), Communication yearbook 3. New Brunswick, N.J.: Transaction Books, 1979.
- Alexander, A. & Candan, C. Praise and organizational behavior. Paper presented at the annual meeting of the International Communication Association, Minneapolis, 1981.
- Allport, G. W. Attitudes. In C. Murchinson (Ed.), Handbook of social psychology. Worcester, England: Clark University Press, 1935.
- Annett, J. Feedback and human behavior: The effects of knowledge of results, incentives and reinforcement on learning and performance. Baltimore: Penguin Books, 1969.
- Applbaum, R. L. & Anatol, K. W. E. The relationships among Job Satisfaction, organizational norms, and communication climate among employees in an academic organization. Journal of Applied Communication Research, 1979, 7 (2), 83-90.
- Baum, J. F. & Youngblood, S. Impact of an organizational control policy on absenteeism, performance, and satisfaction. Journal of Applied Psychology, 1975, 60, 688-694.
- Beaumont, P. R. & Partridge, M. The Job Satisfaction of women in Britain. Equal Opportunities International, 1982, 1 (3), 35-37.
- Bigly, D. G. Improving productivity through feedback and goal setting (Doctoral dissertation, University of Houston, 1981) Dissertation Abstracts International, 1981, 42 (8), 3476-B.
- Bilodeau, E. & Bilodeau, I. Motor skills learning. Annual Review of Psychology, 1961, 22, 243-254.
- Blood, M. R. The validity of importance. Journal of Applied Psychology, 1971, 55, 487-488.
- Brayfield, A. H. & Crockett, W. H. Employee attitudes and employee performance. Psychological Bulletin,

1955, 52, 396-424.

Brayfield, A. H. & Rothe, H. F. An index of job satisfaction. Journal of Applied Psychology, 1951, 35 (5), 307-311.

Brown, M. G. Improving customer service in a large department store through the use of training and feedback. Journal of Organizational Behavior Management, 1980, 2 (4), 251-265.

Burke, R. J. Are Herzberg's motivators and hygienes unidimensional? Journal of Applied Psychology, 1966, 50, 317-321.

Carlsmith, J. C., Ellsworth, P. C., & Aronson, E. Methods of research in social psychology. Reading, Massachusetts: Addison-Wesley Publishing Company, 1976.

Carrell, R. & Elbert, F. Personal and organizational determinants of job satisfaction of postal clerks. Academy of Management Journal, 1974, 17 (2), 368-372.

Chusmir, L. H. Profile of motivational needs of individuals in the newspaper industry. Newspaper Research Journal, 1983, 5 (1), 33-41.

Cusella, L. P. The effects of feedback on intrinsic motivation: a propositional extension of cognitive evaluation theory from an organizational communication perspective. In D. Nimmo (Ed.), Communication yearbook 4. New Brunswick, N.J.: Transaction Books, 1980.

Day, R. C. & Hamblin, R. L. Some effects of close and punitive styles of supervision. American Journal of Sociology, 1964, 69, 499-510.

Dennis, H. The construction of a managerial "Communication Climate" inventory for use in complex organizations. Paper presented at the annual meeting of the International Communication Association, Chicago, 1975.

Downs, C. W. The relationship between communication and job satisfaction. In R. C. Huseman (Ed.), Readings in interpersonal and organizational communication. Boston: Holbrook Press, Inc., 1977.

Downs, C. W. & Hain, T. Productivity and communicaiton.

In M. Burgoon (Ed.), Communication yearbook 5. New Brunswick, N.J.: Transaction Books, 1982.

- Downs, C. W., Johnson, K., & Barge, J. K. Communication feedback and task performance in organizations: a review of the literature. In H. Greenbaum, R. Falcione, S. Hellweg, & Associates (Eds.), Organizational communication (Vol. 9). San Francisco: Sage, 1984.
- Dunnette, M. D., Campbell, J. P., & Hakel, M. D. Factors contributing to job satisfaction and job dissatisfaction in six occupational groups. Organizational Behavior and Human Performance, 1967, 2, 143-174.
- Eberhardt, B. J. & Shani, A. B. The effects of full-time employment status on attitudes towards specific organizational characteristics and overall job satisfaction. Academy of Management Journal, 1984, 27 (4), 893-899.
- Ewen, R. B. Weighting components of job satisfaction. Journal of Applied Psychology, 1967, 51, 68-73.
- Ewen, R., Smith, P., Hulin, C. & Locke, E. An emperical test of the Herzberg two-factor theory. Journal of Applied Psychology, 1966, 50, 544-550.
- Falcione, R. L. Communication climate and satisfaction with immediate supervision. Journal of Applied Communication Research, 1974, 13-20.
- Fazio, R. H., Powell, M. C., & Herr, P. M. Toward a process model of the attitude-behavior relation: accessing one's attitude upon mere observation of the attitude object. Journal of Personality and Social Psychology, 1983, 44 (4), 723-735.
- Fishbein, M. & Ajzen, I. Belief, attitude, intention, and behavior. Reading, Massachusetts: Addison-Wesley Publishing Company, 1975.
- Fisher, C. D. Transmission of positive and negative feedback to subordinates: a laboratory investigation. Journal of Applied Psychology, 1979, 64 (5), 533-540.
- Follert, V. Communication climate: a theoretical framework for accessibility. Journal of Applied Communication Research, 1980, 8 (2), 91-99.

- Glasnapp, Dr. Doug. Personal interview. April 11, 1986. Professor of Educational Psychology and Research, University of Kansas.
- Greene, C. N. Causal connections among managers' merit pay, job satisfaction, and performance. Journal of Applied Psychology, 1973, 58 (1), 95-100.
- Greller, M. M. Evaluation of feedback sources as a function of role and organizational level. Journal of Applied Psychology, 1980, 65 (1), 24-27.
- Guion, R. M. A note on organizational climate. Organizational Behavior and Human Performance, 1973, 9, 120-125.
- Hackman, J.R. & Lawler, E. E. Employee reactions to job characteristics. Journal of Applied Psychology, 1971, 55, 259-286.
- Halpern, G. Relative contributions of motivators and hygiene factors to overall job satisfaction. Educational Testing Service Bulletin, 1965, RD-65, 34.
- Hardyck, C. D., & Petrinovich, L.F. Introduction to statistics for the behavioral sciences. (2nd ed.), New York: W. B. Saunders Company, 1976.
- Harper, D. G. & Reeves, K. Employee attitude surveys: their interpretation and use. The International Journal of Management Science, 1977, 5 (3), 239-253.
- Hellreigle, D. & Slocum, J. W., Jr. Organizational climate: measures, research, and contingencies. Academy of Management Journal, 1974, 17, 255-280.
- Herzberg, F. Mausner, B., & Snyderman, B. The motivation to work. New York: Wiley, 1959.
- Hirokawa, R. Y. Improving intra-organizational communication: a lesson from Japanese management. Communication Quarterly, 1981, 30 (1), 35-40.
- Hunt, G. T. & Ebeling, R. E. The impact of a communication intervention on work-unit productivity and employee satisfaction. Journal of Applied Communication Research, 1983, 11 (1), 57-68.
- Ilgen, D. R., Fisher, C. D., Taylor, S. Consequences of

- individual feedback on behavior in organizations. Journal of Applied Psychology, 1979, 64 (4), 349-371.
- Ilgen, D. R. & Knowlton, W. A. Performance attributional effects on feedback from superiors. Organizational Behavior and Human Performance, 1980, 25 (3), 441-456.
- Iverson, G. & Norpoth, H. Analysis of variance. Beverly Hills: Sage, 1976.
- Jablin, F. M. Formal structure characteristics of organizations and superior-subordinate communication. Human Communication Research, 1982, 8 (4), 338-347.
- Jablin, F. M. Organizational communication theory and research: an overview of communication climate and network research. In D. Nimmo (Ed.), Communication yearbook 4. New Brunswick, N.J.: Transaction Books, 1980.
- James, L. R. & Jones, A. P. Organizational climate: a review of theory and research. Psychological Bulletin, 1974, 81, 1096-1112.
- Johannesson, R. W. Some problems in the measurement of organizational climate. Organizational Behavior and Human Performance, 1973, 10, 118-144.
- Joyce, W. F. & Slocum, J. W., Jr. Collective climate: Agreement as a basis for defining aggregate climates in organizations. Academy of Management Journal, 1984, 27 (4), 721-742.
- Katz, D. The functional approach to the study of attitudes. Public Opinion Quarterly, 1960, 24, 14.
- Kim, J. S. & Hamner, W. C. Effects of performance feedback and goal setting on productivity and satisfaction in an organizational setting. Journal of Applied Psychology, 1976, 61, 48-57.
- King, N. Clarification and evaluation of the two-factor theory of job satisfaction. Psychological Bulletin, 1970, 74 (1), 18-31.
- Komaki, J., Heinemann, A., Lawson, L. Effect of training and feedback: component analysis of a behavioral safety program. Journal of Applied Psychology, 1980, 65 (3), 261-270.

- LaRocco, J. M. Job attitudes, intentions, and turnover: an analysis of effects using latent variables. Human Relations, 1983, 36 (9), 813-826.
- Larsen, K. S. & LeRoux, J. Item analysis vs factor analysis in the development of unidimensional attitude scales. The Journal of Social Psychology, 1983,, 119, 95-101.
- Lawler, E. E. & Porter, L. W. The effect of performance on job satisfaction. Industrial Relations, 1967, 7, 20-28.
- Lewin, K. Field theory in social science. New York: Harper & Brothers, 1951.
- Lobel, T. The prediction of behavior from different types of beliefs. The Journal of Social Psychology, 1982, 118, 213-223.
- Locke, E. Job satisfaction and job performance: a theoretical analysis. Organizational Behavior and Human Performance, 1970, 5, 484-500.
- Locke, E. What is a job satisfaction? Organizational Behavior and Human Performance, 1969, 4, 309-336.
- Lorenzi, P. Attitude, beliefs, and values. Book in preparation, 1985.
- Matthews, M. Communication apprehension and job position as variables affecting job satisfaction. Paper submitted to the International Communication Association, 1983.
- McKennell, A. C. Surveying attitude structures. Amsterdam: Elsevier, 1974.
- Mikes, P. S. & Hulin, C. L. Use of importance as a weighting component of job satisfaction. Journal of Applied Psychology, 1968, 52, 394-398.
- Motowidlo, S. J. Does job satisfaction lead to consideration and personal sensitivity? Academy of Management Journal, 1984, 27 (4), 910-915.
- Muchinsky, P. M. Organizational communication: relationships to organizational climate and job satisfaction. Academy of Management Journal, 1977, 20 (4), 592-607.

- Nadler, D. A. The effects of feedback on task behavior: a review of experimental literature. Organizational Behavior and Human Performance. 1979, 23, 309-338.
- Pacanowsky, M. E. & O'Donnell-Trujillo, N. Organizational communication as culture performance. Communication Monographs, 1983, 50 (2), 126-147.
- Payne, R. & Pugh, D. Organizational structure and climate. In M. Duunnette (Ed.), Handbook of industrial and organizational psychology. Chicago: Rand-McNally, 1976.
- Penley, L. E. An investigation of the information processing framework of organizational communication. Human Communication Research, 1982, 8 (4), 348-369.
- Phillips, J. S. Job satisfaction among state directors of vocational rehabilitation. Journal of Rehabilitation Administration, 1983, 54-60.
- Poole, M. S. & McPhee, R. D. A structural analysis of organizational climate. In L. Putnam & M. Pacanowsky (Eds.), Communication and organizations: an interpretive approach. Beverly Hills: Sage, 1983.
- Porter, L. W. A study of perceived need satisfaction in bottom and middle management jobs. Journal of Applied Psychology. 1961, 45, 1-10.
- Porter, L. W. & Mitchell, V. F. Comparative study of need satisfaction in military and business hierarchies. Journal of Applied Psychology, 1967, 51, 139-144.
- Prybil, L. D. Job satisfaction in relation to job performance and occupational level. Personnel Journal. 1973, 94-100.
- Richmond, V. P., McCrosky, J. C., & Davis, L. M. Individual differences among employees, management, communication style, and employee satisfaction: replication and extension. Human Communication Research, 1982, 8 (2), 170-188.
- Richmond, V. P., Wagner, J. P., and McCrosky, J. C. The impact of perceptions of leadership style, use of power, and conflict management style on organizational outcomes. Communication Quarterly, 1983, 31 (1), 27-36.

- Rings, R. L., Stinson, J. E., & Johnson, T. W. Communication behaviors associated with role stress and satisfaction variables. Journal of Applied Communication Research, 1979, 7 (1), 15-22.
- Rossi, P. H., Wright, J. D., & Anderson, A. B. Handbook of survey research. New York: Academic Press, 1983.
- Schaffer, R. H., Job satisfaction as related to need satisfaction in work. Psychological Monographs, 1953, 67.
- Schneider, B. Organizational Climates: an essay. Personnel Psychology, 1975, 28, 447-479.
- Schneider, B. & Snyder, R. A. Some relationships between job satisfaction and organizational climate. Journal of Applied Psychology, 1975, 60 (3), 318-328.
- Smith, P., Kendall, L. & Hulin, C. The management of satisfaction in work and retirement. Chicago: Rand McNally & Co., 1969.
- Swan, J. E. & Futrell, C. M. Does clear communication relate to job satisfaction and self-confidence among salespeople? Journal of Business Communication, 1975, 15 (4), 38-52.
- Tagiuri, R. & Litwin, G. Organizational climate. Boston: Harvard University Press, 1968.
- Triandis, H. C. Attitude and attitude change. New York: John Wiley & Sons, Inc., 1971.
- Vandaveer, V. V. The dynamics of the performance feedback process in organizations (Doctoral dissertation, University of Houston, 1981). Dissertation Abstracts International, 1981, 42 (11), 4609-B.
- Vroom, V. H. Work and motivation. New York: Wiley, 1964.
- Vielehaber, M. E. Communication and attitudes toward work-related change. Journal of Applied Communication Research, 1983, 11 (1), 1-16.
- Walter, G. A. Effects of video tape feedback and modeling on the behaviors of task group members. Human Relations, 1975, 28, 121-138.

- Wanous, J. P. A causal-correlational analysis of the job satisfaction and performance relationship. Journal of Applied Psychology, 1974, 59 (2), 139-144.
- Wanous, J. P. & Lawler, E. E. Measurement and meaning of job satisfaction. Journal of Applied Psychology, 1972, 56 (2), 95-105.
- Weaver, C. N. Job satisfaction in the United States in the 1970's. Journal of Applied Psychology, 1980, 65, 364-367.
- Weiner, N. Cybernetics: on control and communication in the animal and the machine. New York: John Wiley & Sons, 1948.
- White, S. & Mitchell, T. Job enrichment versus social cues: A comparison and competitive test. Journal of Applied Psychology, 1979, 64, 1-9.
- Williams, F. Reasoning with statistics (2nd ed.). New York: Holt, Rinehart, and Winston, 1979.
- Wilson, D. G. The relative impact of two forms of assessment data feedback on a teacher's perceived strengths and needs for improvement (Doctoral Dissertation, Michigan State University, 1981). Dissertation Abstract International, 1981, 42 (2), 677-A.

APPENDIX A

EMPLOYEE OPINION SURVEY
SAMPLE

INTRODUCTION

THE _____ EMPLOYEE SURVEY HAS BEEN DEVELOPED TO INCREASE YOUR OPPORTUNITY TO MAKE WORKING IN THE _____ MORE SATISFYING AND PRODUCTIVE. YOU HAVE THE OPPORTUNITY TO COMMUNICATE YOUR CONCERNS TO MANAGEMENT AT BOTH THE LOCAL AND CORPORATE LEVEL.

YOUR PARTICIPATION IS IMPORTANT TO US AND TO YOU.

THIS SURVEY IS ANONYMOUS. NO INDIVIDUAL WILL BE IDENTIFIED AND THAT IS WHY WE DO NOT ASK FOR YOUR SIGNATURE ON THE SURVEY. THE SURVEY FORMS ARE MAILED DIRECTLY TO AN OUTSIDE COMPUTER SERVICE BUREAU FOR PROCESSING. THE SERVICE BUREAU WILL TABULATE AND PRODUCE REPORTS WHICH ARE REVIEWED AND ANALYZED BY BOTH LOCAL AND CORPORATE MANAGEMENT.

THE RESULTS OF THIS SURVEY WILL BE SUMMARIZED AND PRESENTED TO YOU. SOME OF THE INFORMATION WILL BE USED IN PLANNING BUSINESS AND PERSONNEL PROGRAMS AT YOUR LOCATION. SOME WILL BE USED TO ASK FOR YOUR IDEAS AND INVOLVEMENT IN HELPING US TO MAKE OUR DIVISION A MORE SATISFYING AND MORE PRODUCTIVE PLACE TO WORK.

DEFINITIONS

- O YOUR SUPERVISOR MEANS THE PERSON TO WHOM YOU REPORT DIRECTLY (EXCLUDING "LEAD" PEOPLE).
- O MANAGEMENT MEANS THE OVERALL LEADERSHIP OR MANAGEMENT AS A WHOLE IN THE LOCATION.

COMPANY

EMPLOYEE OPINION SURVEYINSTRUCTIONS

ON THIS PAGE, PLEASE CHECK THE NUMBER
THAT FITS YOUR STATUS.

DESCRIPTIVE ITEMSA. SEX

1. ☐ MALE
2. ☐ FEMALE

E. PAY STATUS

- ☐ EXEMPT - SALARIED
☐ NON-EXEMPT - OFFICE/CLERICAL
☐ HOURLY - SHOP

B. AGE

1. ☐ UNDER 20 YEARS
2. ☐ 20-29 YEARS
3. ☐ 30-39 YEARS
4. ☐ 40-49 YEARS
5. ☐ 50 YEARS OR MORE

F. DEPARTMENT/AREAC. LENGTH OF SERVICE

1. ☐ LESS THAN 1 YEAR
2. ☐ 1 YR. BUT LESS THAN 3 YRS.
3. ☐ 3 YRS. BUT LESS THAN 5 YRS.
4. ☐ 5 YRS. BUT LESS THAN 10 YRS.
5. ☐ 10 YRS. BUT LESS THAN 20 YRS.
6. ☐ 20 YRS. BUT LESS THAN 30 YRS.
7. ☐ OVER 30 YRS.

D. NATIONAL ORIGIN

1. ☐ WHITE
2. ☐ HISPANIC
3. ☐ BLACK
4. ☐ ORIENTAL
5. ☐ AMERICAN INDIAN
6. ☐ OTHER

EMPLOYEE OPINION SURVEYINSTRUCTIONS

FOR EACH QUESTION CHOOSE ONE OF THE FIVE POSSIBLE ANSWERS THAT BEST FITS YOUR OPINION. PLEASE TRY TO USE THE FULL RANGE OF ANSWERS (STRONGLY AGREE TO STRONGLY DISAGREE).

- | | | | | | |
|---|-------|-------|-------|-------|-------|
| 1. THE PEOPLE I WORK WITH COOPERATE TO GET THE JOB DONE. | _____ | _____ | _____ | _____ | _____ |
| 2. I HAVE THE NECESSARY TOOLS AND EQUIPMENT TO TURN OUT A QUALITY JOB IN A SAFE MANNER. | _____ | _____ | _____ | _____ | _____ |
| 3. OVERTIME IS ADMINISTERED IN A FAIR MANNER. | _____ | _____ | _____ | _____ | _____ |
| 4. LAVATORIES ARE CLEAN AND WELL MAINTAINED. | _____ | _____ | _____ | _____ | _____ |
| 5. IMPORTANT PROBLEMS IN MY WORK AREA ARE <u>NOT</u> LIKELY TO BE SWEEPED UNDER THE RUG. | _____ | _____ | _____ | _____ | _____ |
| 6. I HAVE ENOUGH INFORMATION TO DO MY JOB WELL AND SAFELY. | _____ | _____ | _____ | _____ | _____ |
| 7. PLANT RULES AND PENALTIES FOR VIOLATIONS ARE FAIRLY ADMINISTERED. | _____ | _____ | _____ | _____ | _____ |
| 8. OVERALL, I THINK THE WORK CONDITIONS IN MY AREA ARE GOOD. (HEAT, LIGHT, DUST, CROWDING, ETC.). | _____ | _____ | _____ | _____ | _____ |
| 9. I FEEL TOO MUCH PRESSURE ON MY JOB. | _____ | _____ | _____ | _____ | _____ |
| 10. I THINK THE FOOD VENDING SERVICE IS GOOD. | _____ | _____ | _____ | _____ | _____ |
| 11. I BELIEVE THE SAFETY CONDITIONS IN MY WORK AREA ARE ADEQUATE. | _____ | _____ | _____ | _____ | _____ |
| 12. I BELIEVE THAT MY LUNCH ROOM FACILITIES ARE ADEQUATE | _____ | _____ | _____ | _____ | _____ |

WRITE IN ANY COMMENTS ON THE QUESTIONS ON THIS PAGE

EMPLOYEE OPINION SURVEY

3. WHEN PROBLEMS OR COMPLAINTS CANNOT BE FULLY SETTLED WITH MY IMMEDIATE SUPERVISOR, I FEEL FREE TO GO TO SOMEONE HIGHER IN AUTHORITY. _____
4. MY SUPERVISOR DISCUSSES MY WORK PERFORMANCE WITH ME SEVERAL TIMES A YEAR. _____
5. MY SUPERVISOR SELDOM SHOWS FAVORITISM. _____
6. WHEN I AM ASSIGNED WORK, MY JOB INSTRUCTIONS ARE USUALLY ADEQUATE. _____
7. THE ASSISTANCE PROVIDED TO ME BY MY SUPERVISOR IN WORKING TOWARD MY CAREER OBJECTIVE IS ADEQUATE. _____
8. FROM PAST EXPERIENCE I HAVE LEARNED YOU CAN USUALLY COUNT ON MANAGEMENT TO KEEP THEIR PROMISES TO EMPLOYEES. _____
9. WHEN I TALK TO MY SUPERVISOR ABOUT JOB-RELATED PROBLEMS OR COMPLAINTS, I AM USUALLY TREATED FAIRLY. _____
10. MY SUPERVISOR PRAISES ME ENOUGH WHEN I DO A GOOD JOB. _____
1. MY SUPERVISOR SHOWS CONFIDENCE IN MY ABILITY TO DO MY JOB. _____
2. I RECEIVE CLEAR DIRECTION FROM MY SUPERVISOR CONCERNING PRIORITIES RELATED TO MY JOB. _____
3. MY SUPERVISOR IS WILLING TO LISTEN TO MY WORK RELATED IDEAS AND OPINIONS. _____

WRITE IN ANY COMMENTS ON THE QUESTIONS ON THIS PAGE

EMPLOYEE OPINION SURVEY

- | | | | | | | |
|-----|--|-------|-------|-------|-------|-------|
| 4. | OVERALL, I THINK MY SUPERVISOR IS
DOING A GOOD JOB. | _____ | _____ | _____ | _____ | _____ |
| 5. | I FEEL I AM PAID FAIRLY IN COMPARISON TO
THE PAY FOR SIMILAR WORK IN OTHER COMPANIES
IN THIS AREA. | _____ | _____ | _____ | _____ | _____ |
| 6. | I MAY LEAVE I _____ R
WITHIN THE NEXT YEAR BECAUSE OF
DISSATISFACTION WITH MY PAY. | _____ | _____ | _____ | _____ | _____ |
| 7. | I BELIEVE MY PRESENT PAY IS ABOUT RIGHT FOR THE
WORK I DO. | _____ | _____ | _____ | _____ | _____ |
| 8. | I AM GIVEN A REAL OPPORTUNITY TO IMPROVE MY
SKILLS IN THIS JOB. | _____ | _____ | _____ | _____ | _____ |
| 9. | I LIKE THE KIND OF WORK I DO. | _____ | _____ | _____ | _____ | _____ |
| 10. | MY WORK GIVES ME A FEELING OF PERSONAL
ACCOMPLISHMENT. | _____ | _____ | _____ | _____ | _____ |
| 11. | MY JOB MAKES GOOD USE OF MY SKILLS
AND ABILITIES. | _____ | _____ | _____ | _____ | _____ |
| 12. | I MAY LEAVE I _____ R
WITHIN THE NEXT TWELVE MONTHS BECAUSE OF
DISSATISFACTION WITH MY JOB. | _____ | _____ | _____ | _____ | _____ |
| 13. | DURING THE PAST YEAR RELATIONSHIPS BETWEEN
MANAGEMENT AND EMPLOYEES HAVE BEEN
GETTING BETTER. | _____ | _____ | _____ | _____ | _____ |

WRITE IN ANY COMMENTS ON THE QUESTIONS ON THIS PAGE

EMPLOYEE OPINION SURVEY

- | | | | | | | |
|-----|--|-------|-------|-------|-------|-------|
| 4. | MY WORK IS NOT AS SATISFYING AS IT USED TO BE. | _____ | _____ | _____ | _____ | _____ |
| 5. | WHAT HAPPENS TO I R
IS IMPORTANT TO ME. | _____ | _____ | _____ | _____ | _____ |
| 6. | OVERALL, I AM SATISFIED WITH MY JOB. | _____ | _____ | _____ | _____ | _____ |
| 7. | I AM SATISFIED WITH MY OPPORTUNITY TO GET A
BETTER JOB IN THIS COMPANY | _____ | _____ | _____ | _____ | _____ |
| 8. | I FEEL THE COMPANY PROVIDES GOOD JOB SECURITY
FOR SOMEONE LIKE MYSELF. | _____ | _____ | _____ | _____ | _____ |
| 9. | I FEEL MANAGEMENT SETS REALISTIC PRODUCTION
GOALS AND DEADLINES. | _____ | _____ | _____ | _____ | _____ |
| 10. | PEOPLE AT THE TOP OF THIS ORGANIZATION
ARE AWARE OF PROBLEMS AT MY LEVEL. | _____ | _____ | _____ | _____ | _____ |
| 11. | SUFFICIENT EFFORT IS MADE TO GET THE OPINIONS
AND THINKING OF PEOPLE WHO WORK HERE. | _____ | _____ | _____ | _____ | _____ |
| 12. | MANAGEMENT MEETS REGULARLY WITH ME AND OTHER
EMPLOYEES. | _____ | _____ | _____ | _____ | _____ |
| 13. | I FEEL FREE TO COMMUNICATE "BAD NEWS" TO MY
SUPERVISOR. | _____ | _____ | _____ | _____ | _____ |
| 14. | THE PERSONNEL DEPARTMENT IS RESPONSIVE TO MY
NEEDS. | _____ | _____ | _____ | _____ | _____ |
| 15. | I AM SATISFIED WITH THE INFORMATION I RECEIVE
FROM MANAGEMENT ABOUT WHAT IS GOING ON IN THE
COMPANY. | _____ | _____ | _____ | _____ | _____ |
| 16. | OVERALL, I THINK THE PROGRAM TO HANDLE
PROMOTIONS AND UPGRADES IS GOOD. | _____ | _____ | _____ | _____ | _____ |

WRITE IN ANY COMMENTS ON THE QUESTIONS ON THIS PAGE

EMPLOYEE OPINION SURVEY

47. I FEEL THAT MANAGEMENT ENCOURAGES EMPLOYEES TO
MAKE SUGGESTIONS.

48. OVERALL, I FEEL THE TOTAL BENEFIT PROGRAM
(INSURANCE, MEDICAL, ETC.) IS A GOOD ONE.

CONSIDERING THEM SEPARATELY I THINK THE
FOLLOWING BENEFIT PROGRAMS ARE GOOD ONES:

49. VACATION

50. EMPLOYEE SAVINGS & STOCK INVESTMENT PLAN

51. MEDICAL INSURANCE

52. PENSION

53. LIFE INSURANCE

54. I FEEL THE COMPANY BENEFITS HAVE BEEN CLEARLY
EXPLAINED TO ME.

55. THE COMPANY'S EFFORT TO HIRE, TRAIN
AND UPGRADE PEOPLE FROM MINORITY GROUPS
HAS BEEN ABOUT RIGHT.

56. THE COMPANY'S AFFIRMATIVE ACTION PROGRAM HAS
BEEN COMMUNICATED TO ME.

57. I FEEL I HAVE RECEIVED ADEQUATE TRAINING FOR
MY PRESENT JOB.

58. I BELIEVE NEW EMPLOYEES ARE GIVEN ENOUGH
TRAINING TO HELP THEM DO THEIR JOB IN A
SATISFACTORY MANNER.

59. I FEEL WE PRODUCE A QUALITY PRODUCT.

60. OUR CUSTOMERS KNOW THEY CAN DEPEND UPON OUR
PRODUCTS.

WRITE IN ANY COMMENTS YOU HAVE ON THE QUESTIONS ON THIS PAGE

EMPLOYEE OPINION SURVEY

- | | | | | | |
|--|-------|-------|-------|-------|-------|
| 61. FILLING IN THIS SURVEY IS A GOOD WAY TO LET
MANAGEMENT KNOW WHAT I THINK. | _____ | _____ | _____ | _____ | _____ |
| 62. THE QUESTIONS IN THIS SURVEY ARE EASY TO
UNDERSTAND. | _____ | _____ | _____ | _____ | _____ |
| 63. I WOULD LIKE THE COMPANY TO TAKE ANOTHER SURVEY
IN THE FUTURE. | _____ | _____ | _____ | _____ | _____ |
| 64. I CAN SEE CLEARLY WHY IMPROVED PRODUCTIVITY
IS IMPORTANT TO THIS LOCATION. | _____ | _____ | _____ | _____ | _____ |
| 65. MY SUPERVISOR EMPHASIZES PRODUCTIVITY
IMPROVEMENT IN OUR DAILY ROUTINE. | _____ | _____ | _____ | _____ | _____ |
| 66. MOST PRODUCTIVITY IMPROVEMENTS AROUND
HERE ARE MANAGEMENT'S RESPONSIBILITY. | _____ | _____ | _____ | _____ | _____ |
| 67. IT IS CLEAR WHAT I AM RESPONSIBLE FOR
IN MY AREA. | _____ | _____ | _____ | _____ | _____ |
| 68. MY WORK GROUP AND I COULD TAKE MORE
RESPONSIBILITY THAN WE HAVE BEEN ALLOWED. | _____ | _____ | _____ | _____ | _____ |
| 69. I KNOW WHAT MY SUPERVISOR THINKS OF MY
WORK. | _____ | _____ | _____ | _____ | _____ |
| 70. EVERYTHING CONSIDERED, I AM SATISFIED
WORKING HERE. | _____ | _____ | _____ | _____ | _____ |
| 71. MY SUPERVISOR TAKES PROMPT AND FAIR
DISCIPLINE WITH EMPLOYEES WHO DO NOT
FOLLOW POLICIES AND PROCEDURES. | _____ | _____ | _____ | _____ | _____ |
| 72. I FEEL FREE TO TELL MY SUPERVISOR WHAT
I THINK. | _____ | _____ | _____ | _____ | _____ |

WRITE IN ANY COMMENTS YOU HAVE ON THE QUESTIONS ON THIS PAGE

EMPLOYEE OPINION SURVEY

73. I HAVE CONFIDENCE IN THE FAIRNESS OF
MANAGEMENT IN THIS LOCATION.

74. I CAN BE SURE OF A JOB AS LONG AS I
DO GOOD WORK.

75. MANAGEMENT, HERE, RESPONDS TO MY IDEAS
AND OPINIONS.

APPENDIX B

.

FACTOR ANALYSIS

VARIMAX CONVERGED IN 10 ITERATIONS.

ROTATED FACTOR MATRIX:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7
MIS1	.28834	.12457	.01011	.14146	.31723	.06918	-.07819
COND2	.18197	.17648	.13129	.06581	.42583	.10225	-.01392
MIS3	.29280	.10706	.06615	.10659	.40159	.07527	-.08648
COND4	.11732	.14394	.15341	.04547	.58228	.02381	-.02385
MIS5	.18491	.22922	.13315	.01277	.26083	.66235	-.07666
INF6	.23953	.15879	.08026	.07890	.24758	.09012	-.01719
MIS7	.23174	.33609	.10773	.04320	.44500	-.00251	-.01876
COND8	.13422	.17122	.12764	.10645	.62418	.15884	.00358
MIS9	-.08950	.02041	.03096	.11402	.02203	-.14691	.59517
MIS10	.11205	.16739	.08291	.06499	.46191	-.38170	.14182
COND11	.18883	.12287	.15768	.09715	.61961	.01706	.00002
MIS12	-.00918	.06055	.03693	-.01136	.20825	.13326	.08155
MIS13	.09518	.08466	.05271	.00397	.03553	.13287	.00145
SPV14	.51877	.23385	.11715	.03962	.04245	.25982	.07772
SPV15	.62186	.17863	.04665	.06669	.22864	.02286	-.01428
MIS16	.49090	.11490	.10944	.06870	.12271	.13184	-.01759
SPV17	.57036	.25695	.06790	.17561	.20559	.08762	-.03094
MNG18	.34149	.50247	.14173	.06358	.26169	.02519	-.04800
SPV19	.66659	.22231	.07458	.07859	.25453	-.01672	-.09521
SPV20	.68640	.21730	.09016	.08434	.06693	.05134	-.01826
SPV21	.69181	.05352	.09256	.12941	-.01241	.02117	-.01121
SPV22	.35789	.15198	.14115	-.01647	.05001	.65676	-.11067
SPV23	.73234	.17021	.06607	.02165	.08118	.01697	-.03421
SPV24	.72833	.19993	.06623	.08812	.11141	.06411	-.08259
PAY25	.13693	.25342	.18898	.08027	.12235	-.13586	-.10213
PAY26	-.03707	-.00245	-.03342	.05448	-.01948	.08484	.72062
PAY27	.09840	.23214	.14682	.06424	.07427	.14812	.05866
JSAT28	.27578	.27776	.11613	.45584	.10495	.36126	-.00441
JSAT29	.12956	.05947	.08407	.76036	.06654	.10142	-.00782
JSAT30	.19811	.11216	.08406	.75146	.14666	-.01760	-.04601
MIS31	.11370	.19787	.04263	.69086	.02984	-.09807	-.03635
MIS32	.03119	.05957	.01919	-.12815	.02032	.06029	.77769
MIS33	.16609	.52835	.09928	.13192	.13768	-.02920	-.05489
MIS34	-.06300	.08922	.04792	-.26032	.02774	.21795	.64552
MIS35	.22139	.03909	.05622	.35050	.09779	.30410	-.07405
JSAT36	.25283	.28419	.09006	.50905	.15166	-.16173	-.21014
COPP37	.19238	.39850	.11086	.32052	.21381	-.18487	-.07381
MIS38	.18127	.39758	.18924	.24070	.06912	-.02865	-.10922
MNG39	.13350	.49381	.10935	.10784	.10026	.03569	.00615
MNG40	.17149	.63603	.10925	.06274	.10027	.13094	.05774
UPR41	.20453	.72607	.12825	.06651	.11707	.03890	-.00507
MNG42	.22860	.61751	.13877	.02167	.06860	.19614	.08527
SPV43	.51057	.34137	.07792	.14941	.03791	-.12917	-.03359
MNG44	.18232	.52015	.14323	.10896	.05549	-.07466	.01571
MNG45	.19152	.65437	.16455	.05757	.06151	-.04701	.00480
COPP46	.20277	.58682	.14106	.12214	.15204	.15626	.00597
UPR47	.20129	.52445	.21194	.07970	.20361	.08092	-.01371
BEN48	.09989	.14552	.75125	.02488	.12854	-.08286	.00360
BEN49	.08671	.18345	.58248	.08846	.10571	.17521	.02752
BEN50	-.04122	.00399	.12051	-.02250	.12842	.01816	.01853
BEN51	.11026	.15623	.77888	.02801	.12268	-.07973	.03542
BEN52	.08928	.20464	.71542	.07515	.11122	.14534	.01517
BEN53	.10212	.15278	.71774	.06711	.06401	-.05777	-.01293
BEN54	.12516	.22082	.42367	.07597	.00004	-.03607	.00976
MIS55	.14183	.18441	.09800	.09072	.13255	-.13187	.09677
MIS56	.08890	.27405	.13088	.07199	.14614	-.03143	-.02635
INF57	.20949	.18924	.09081	.10184	.02538	-.34873	.02687
INF58	.09376	.26664	.13965	.02716	.05572	.01643	.01448
QC59	.10306	.15408	.11482	.12371	.07475	.09221	.00766
QC60	.09504	.17356	.10995	.12105	.05951	.13067	-.01667
MIS61	.05900	.16483	.08508	.04119	.05953	.03396	.08261
MIS62	.08257	.00353	.09952	.07532	.04753	-.44913	.02163
MIS63	.10155	.08814	.02246	.08441	.03836		

	FACTOR 8	FACTOR 9	FACTOR 10	FACTOR 11	FACTOR 12
MIS1	.23985	-.06877	.15196	.06091	-.09414
COND2	.48082	-.05910	.05411	.11509	-.09612
MIS3	-.04999	.04794	.00966	-.07249	.32081
COND4	-.00835	.23463	.00725	-.04324	.01566
MIS5	.13165	.10079	.01469	.00198	.01693
INF6	.63016	.15769	.00050	.06559	.00382
MIS7	.03583	-.03520	.04435	.05576	.25862
COND8	-.12725	-.05844	.06748	.10934	-.11323
MIS9	.03851	-.00181	.04415	-.00845	-.05592
MIS10	-.06948	.17356	-.00894	.07399	.03820
COND11	.28348	.05447	.05578	.03776	.03786
MIS12	-.03866	.14297	-.06488	.04432	.04478
MIS13	-.04765	-.02957	-.06630	.00091	.07847
SPV14	.10886	.07133	.02680	.00937	-.00909
SPV15	-.00920	-.02616	.03905	.05144	.05302
MIS16	.41704	.02735	.06951	.04303	.09582
SPV17	.14452	.26960	-.07483	.09438	.00359
MNG18	.09189	.06465	.01868	.16092	.07701
SPV19	.03546	.22280	-.03637	.06255	.00150
SPV20	.06351	-.01689	.02983	.06508	.04817
SPV21	.13966	.02470	.06694	.03045	.09925
SPV22	.16239	.11284	.02375	.00273	.04660
SPV23	.08155	.04770	.07792	.01557	.05291
SPV24	.09174	.02459	.06526	.04815	.04517
PAY25	.11755	.00366	.05323	.07187	.01873
PAY26	.06689	-.05225	.00172	-.03835	-.00853
PAY27	.12349	.04406	-.02934	.09522	.02972
JSAT28	.09328	.07840	.04407	.13572	.05004
JSAT29	-.00559	.03157	.09805	.09895	.12730
JSAT30	.01157	.23041	.01069	.04545	.07227
MIS31	.16808	-.04985	.05897	-.15939	-.02424
MIS32	-.06343	-.00193	.01394	.06076	.03650
MIS33	.17571	.19381	-.00357	-.15090	-.10118
MIS34	-.10574	.07757	.01851	.18436	.13207
MIS35	-.02810	.08947	.18112	.27784	.24184
JSAT36	.16658	.15488	.01787	.23627	.01193
COPP37	-.01117	.31694	-.04942	.19933	-.00770
MIS38	.09091	.11906	.05148	.16232	.11931
MNG39	.30194	.02339	.09505	.11733	.09517
MNG40	.10747	-.00899	.06468	.10202	.07846
UPR41	.10068	.03396	.06545	.03505	.07454
MNG42	.06261	.02765	.01864	-.01070	.11246
SPV43	.02407	.02082	.04675	-.02721	.13928
MNG44	.00168	.04190	.04600	.11172	.09860
MNG45	.09984	.05649	.06876	.08863	.13786
COPP46	-.00555	.10233	.00400	.24303	.13728
UPR47	-.02353	.33483	.02062	-.02321	.00958
BEN48	.05112	.08390	-.01766	.09205	-.00719
BEN49	-.01433	.05023	.10215	.07148	.08271
BEN50	.11716	.22760	.12540	.13963	.02703
BEN51	.06924	.05349	-.00965	.06164	.00827
BEN52	.04585	.06955	.08834	.06311	.05207
BEN53	.10111	.02274	.08222	.04335	.11991
BEN54	.16150	.01077	.04006	-.00803	.39446
MIS55	.05034	.08983	.05964	-.07223	.69600
MIS56	.15369	.09695	.00939	-.05707	.56471
INF57	.57912	.27686	.00896	.05575	.21258
INF58	.44529	.16629	.05817	.08602	.27879
QC59	.25191	.68951	.17511	.03761	.11408
QC60	.16214	.75431	.19300	.02326	.09353
MIS61	.01486	.11519	.77401	-.00711	.03180
MIS62	.05788	.12895	.74499	-.01452	.04244
MIS63	.01233	.01144	.64836	.06334	.01169