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The Effect of Organization Structure on Job Satisfaction Among Employees of Retail Firms in the Southeastern United States.

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THE EFFECT OF ORGANIZATION STRUCTURE ON JOB SATISFACTION AMONG EMPLOYEES OF RETAIL FIRMS IN THE SOUTHEASTERN UNITED STATES.

THE LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE PH.D. 1978
THE EFFECT OF ORGANIZATION STRUCTURE
ON JOB SATISFACTION AMONG EMPLOYEES
OF RETAIL FIRMS IN THE SOUTHEASTERN
UNITED STATES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
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in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Management

by

William Wayne McCartney
B.S., Auburn University, 1964
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William W. McCartney
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ABSTRACT

This study examines the effects that organization structure variables have on employee job satisfaction. The sample consisted of 317 employees of twelve retail merchandising firms in the southeastern United States. The respondents, who represented three separate hierarchical levels within each organization (top managers, middle managers, and non-managers), were asked to complete the Job Description Index (JDI). The data were segmented according to organization level, organization size and organization shape and were analyzed using three-factor factorial analysis of variance (ANOVA).

The conclusions which can be drawn from the study are as follows:

1) Satisfaction with work increases with each successively higher level in the organization. That is, top managers are more satisfied than middle managers, who are in turn more satisfied than non-managers.

2) Satisfaction with pay increases with each successively higher level in the organization. That is, top managers are more satisfied than middle managers, who are in turn more satisfied than non-managers.

3) Managers of large firms are more satisfied with their opportunities for promotion than are non-managers in large firms. There is no difference in the satisfaction levels of managers and non-managers of small firms in regard to satisfaction with promotion opportunities.
4) Employees of large firms that have a tall organization structure are more satisfied with their opportunities for promotion than employees of small firms that have a tall structure. There is no difference in the level of satisfaction with promotion for members of firms with flat structures regardless of firm size.

5) Employees of small firms that have a flat organization structure are more satisfied with their opportunities for promotion than employees of small firms that have a tall structure. However, there is no difference in the satisfaction levels of employees of large-tall firms and large-flat firms.

6) Top managers of large firms and middle managers of large firms are more satisfied with their opportunities for promotion than are their counterparts in small firms. However, there is no difference in the satisfaction levels of non-managers in large and small firms.

7) Employees of large firms are more satisfied with their supervision than employees of small firms.

8) Top managers of firms with a tall organization structure are more satisfied with their supervision than are middle managers and non-managers in tall firms. There is no significant difference in the degree of satisfaction with supervision among top managers, middle managers and non-managers of firms with a flat organization structure.

9) Top managers are more satisfied with their coworkers than are non-managers. The satisfaction level of middle managers falls between the two, but is not significantly different from either.

10) The interaction among organization structural variables is significant in explaining the relationship of structure to attitudes concerning job satisfaction.
CHAPTER ONE

INTRODUCTION

The practice of using structured human organizations to achieve goals and reach objectives has been a technique used by mankind since the beginning of civilization.¹ During his existence, man has seen organizations grow in size, complexity and scope until there is hardly any aspect of his life that is not somehow touched by a complex human organization. Beginning with our birth we are introduced to the concept of organizations (the family) and thereafter we continue to voluntarily join structured organizations the rest of our lives.² One can hardly underestimate the impact that these man-made phenomenon have on the way we live and can only speculate as to control that they exercise over human behavior.

The modern complex organization as it exists today has evolved only within the last two hundred years. During the last eighty to ninety years organizational theorists have grappled with the problems of organization design and the

formal structural aspects of the organization. However, the study of the interrelationship between the structure of the organization and the humans which inhabit them is an even more recent development, especially the effect that the structure may have upon the attitudes and behavior of the members. It has only been since the early 1950's that social scientists have put forth a significant research effort in an attempt to identify organization variables that may have an effect on humans within the organization and to identify the manifestations of the effects.

The research undertaken here is an attempt to add to the body of knowledge concerning the effects of structure on organization members and to determine the implications it might have for organization theory.

**Purpose and Scope**

The purpose of this study was to investigate the individual and collective effects that three organization structural variables, (total organization size, organization shape, and organization level) have upon the job satisfaction of employees of independent retail stores in the southeastern United States. Specifically, the objectives of the study

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were:

1. To provide research data that will help resolve some of the conflicting opinions that exist concerning the relationship between organization structural variables and employee job satisfaction.

2. To test for the interaction effect of several structural variables on job satisfaction, an area which has been nearly neglected in the past. It was hoped that a more sophisticated approach to examining the organization structure-job satisfaction nexus would prove to be a more accurate way of viewing the relationships that exist, and as such, improve the understanding of both researchers and practitioners.

3. To provide specific strategic information to managers of independent retail merchandising organizations. Information concerning the relationship between structural variables and employee job satisfaction should enable managers to effectively plan changes in organization design, or if change should be impossible or impractical, enable them to adjust their motivational programs to compensate for the adverse effect that the unfavorable structure has on their employees.

Definitions and Terminology

Organization Structure

There is fairly general agreement among organizational theorists concerning the definition of organization structure. For instance, Ghiselli and Siegel describe organization structure as follows:

The structure of an organization refers to the nature of the distribution of the units and positions within it, and to the nature of the relationships among those units and positions. The dimensions of structure upon which
organizations can be differentiated are
people (size), groups (functional divi-
sions, line or staff) levels of manage-
ment and shape (centralization-decentral-
ization, tall vs. flat).  

Pradip Krandwalla provides a similar definition but
makes a distinction between structure as viewed by the
classical school and as it is viewed by other management
theorists. Krandwalla states that:

Structure is the more or less permanent
arrangement of the parts of a whole.
Organization structure is the network of
durable and formally sanctioned organiza-
tional arrangements and relationships . . . What writers on bureaucracy such as Weber
call the hierarchy of authority, formal
intermember communications, specialization
of functions, and specification of rules and
procedures are elements of organizational
structure. What students of classical
management theory such as Urwick call the
organization chart, forms of departmentaliza-
tion, and the span of control are also
elements of organization structure. What
administrative decision-making theorists
such as Simon call performance programs are
also elements of structure. In every case,
however, the element of structure is a
formally sanctioned relationship. It is, or
intended to be, durable. And it is, or
intended to be, an appropriate administrative
means by which the organization goes about
achieving the purposes for which it is set up.  

For the purpose of this study, the classical definition
is the most appropriate. Structure, as used here, will refer
to the basic formal architectural relationships that exist

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1 Edwin E. Ghiselli and Jacob P. Siegel, "Leadership
and Managerial Success in Tall and Flat Organization

2 Pradip N. Krandwalla, The Design of Organizations
83.
between the parts of the organization and will specifically include the concepts of size, shape and organization level.

**Total Organization Size**

The term organization size is defined by James L. Price as "the scale of operations of a social system." There seems to be little argument among organizational theorists that size refers to magnitude of scale. The area where possible differences in opinion may occur is when one is trying to determine the variable that best describes size. According to Price, the variables most often used in the organizational literature is the number of employees or members of an organization. However, depending on the type of organization being studied, one could easily make a case for using other variables as indicators of size. For instance, such quantitative measures as volume of sales, value of assets, geographical dispersion, average value added, etc., have been suggested as possible variables to indicate size.

The question of total organization size and its effect on the job satisfaction of the members of the organization requires that one define very precisely what is meant by the term "total organization." Porter and Lawler, in their review of the literature on this subject defined "total organization"

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2Ibid., p. 174.

3Ibid., p. 174.
as follows:

By the term "total organization" we mean a total operating company headed by an executive with the title "President." It is admittedly difficult at times to determine whether a "company" in the loose sense of the word, should be considered a separate total organization, in our terms, or merely a subunit of an even larger "corporation." In general, if a company has a chief executive with the title of president and if that company can sell stock independently of other "companies" all under the same corporate holding entity, we would consider it a total organization.¹

A precise definition of "total organization" size is needed to distinguish it from "organization subunit" size. An organization subunit may be a work group, a department, a factory, a plant, etc., while a total organization must conform to the definition just given.

The term "large" and "small" also require consideration. These terms are relative ones depending upon the type of organization being described. For instance, a "large" hospital may not even begin to approach the size of a "large" steel company, yet it still may be necessary that the researcher working with hospitals classify his data as being from either "large" or "small" hospitals. Because of the difference that may exist, a researcher working within a specific industry must be very careful in extending the results of his work to other industries where the terms "large" and "small" may take on different magnitudes.

For the purpose of this study, the term organization size is taken to mean the size of the "total organization" as measured by the number of permanent employees.

**Organization Shape**

The term organization shape refers to the relative "flatness" or "tallness" of an organization. According to Porter and Lawler:

Tall and Flat organization structures are generally distinguished on the basis of the number of levels in the organization relative to the total size of the organization. A flat organization structure is one where there are few levels relative to the total size of the organization and a tall organization structure is one where there are many levels relative to the total size of the organization. Another way of stating this is to say that the degree to which a structure is tall or flat is determined by the average span of control within the organization.¹

Although it seems as if Porter and Lawler were introducing average span of control as a separate measure of organization shape, it is however just another way of stating the relationship that exists between the number of levels in the organization and total size. One can see that if we hold the number of organization members constant and increase the vertical hierarchy or number of levels in the organization we have necessarily reduced the average span of control and produced a taller organization. Conversely, if we hold the

number of organization members constant and decrease the number of the number of levels in the organization we have increased the average span of control and produced a flatter organization. Therefore, the ratio of the number of organization levels to total organization size seems to be a sufficient indicator of organization shape.

When the term organization shape is used in this study it implies that the firm in question has been classified as being either a "tall" firm or a "flat" firm and that this classification has been made on the basis of the number of levels in the organization relative to total organization size.

**Organization Level**

According to Berger and Cummings, "Organizational level refers to an individual's position in the vertical hierarchy of authority and ranges from nonsupervisory workers at the lower end of the scale to the chief executive at the upper extreme."¹ Logically, when comparing organization members using this variable the organization must be segmented into at least two organization levels. Historically, researchers have made a distinction between managers and non-managers, between the various levels of management (top, middle, and lower levels) and occasionally

between all levels in the organization from top management to rank-and-file workers.¹

For the purpose of this study, organization level refers to the individual's relative position in the organization hierarchy with each member being classified as either a top manager, a middle manager (which includes all managers other than top managers), or a non-manager.

Job Satisfaction

Most researchers seem to agree that job satisfaction refers to the feelings that one has about one's job. Katz and Kahn state that "... job satisfaction is used loosely to cover overall liking for the job situation as well as intrinsic job satisfaction deriving from the content of the work process."² Hamner and Organ feel that "essentially, job satisfaction is a person's attitude toward the job,"³ while Davis defines job satisfaction as "... the favorableness or unfavorableness with which employees view their work."⁴

These definitions are in agreement with the definition


submitted by Price in his Handbook of Organizational Measurement when he stated that:

Satisfaction is the degree to which the members of a social system have a positive affective orientation toward membership in the system. Members who have a positive affective orientation are satisfied, whereas members who have a negative affective orientation are dissatisfied.\(^1\)

Wanous and Lawler examined the concept of job satisfaction and reviewed nine different operational definitions. The authors made a distinction between the concepts of overall job satisfaction and satisfaction with a particular facet of one's job. Their definition dealt with this difference as well as the techniques used in measurement.\(^2\) They concluded by saying that "... there probably are several types of feelings that people have which can be called satisfaction or which influence their feeling of satisfaction about their job."\(^3\)

Perhaps the definition that is most appropriate for this study is the one developed by Smith, Kendall and Hulin. As these authors put it:

We have defined job satisfaction as feelings a worker has about his job. To expand on this definition, we can say that there are different feelings corresponding to differentiable aspects of the job. We can further examine some of the


\(^3\)Ibid., p. 104.
conditions which we feel exert major influences on feelings of satisfaction. First, of course, are the specific aspects of the job—the nature of the work itself, the details of remuneration, the nature of promotional opportunities, the characteristics of supervision and the attributes of co-workers on the job—all of which may be considered as sources of satisfaction or dissatisfactions.¹

**Justification for the Study**

Before the specific justifications for the current study are presented, it is necessary to discuss two implicit assumptions that form the foundation for the research effort. First, it is assumed from a management point of view, that some degree of employee job satisfaction is a desirable state, and that a high level of job satisfaction is to be preferred to a low level of job satisfaction. Secondly, it is assumed that the structure of an organization has an effect on the attitudes of individuals within the organization, specifically on the level of individual job satisfaction.

Job satisfaction and its role in the organization, has received much attention in the literature. In addition to organization structural variables, job satisfaction has been linked variously to employee turnover, absenteeism, tardiness, productivity, etc.² While the direction and the extent of the


relationships between job satisfaction and these admittedly important behavioral responses is still an open question in the minds of many, it is not the subject of this inquiry. The position taken here is that employee job satisfaction is a desirable condition regardless of the direction of the cause and effect relationships between it and the various behavioral variables. As Hulin and Blood stated in their discussion of the concept of job enlargement and worker responses:

... trite as it may seem, a high level of job satisfaction among industrial workers may be an appropriate goal in itself. If job enlargement had no other result than decreased boredom and increased job satisfaction, it would be appropriate.¹

Siegel and Lane, expressing similar sentiments in their discussion of the relationship between job performance and job satisfaction, state that:

Even when this anticipated relationship between job satisfaction and performance is not obtained, there are nonetheless substantial benefits accruing to organizations from obtaining job satisfaction information from employees. Most managers, if given a choice would prefer to have satisfied rather than dissatisfied employees.²

Hamner and Organ present perhaps the most convincing arguments concerning the importance of job satisfaction. When answering the question, "why is job satisfaction so important?"

¹Ibid., p. 42.

they list the following six reasons:1

1. "One reason (that job satisfaction is important) stems quite simply from certain value judgments. People spend a sizeable proportion of their waking lives in the work environment. From any minimally humanitarian point of view, we would want that portion of their lives to be more or less pleasant, agreeable, and fulfilling."

2. "A second reason for attaching so much importance to job satisfaction is its relationship to mental health. In the realm of our subjective inner worlds, discontent about specific parts of our lives tend to have a 'spillover' effect and to color our outlook even upon otherwise unrelated portions of our life space. Dissatisfaction with one's job seems to have an especially volatile spillover effect."

3. "Evidence also points to a relationship between job satisfaction and physical health. According to one study (Palmore, 1969) people who like their work are likely to live longer . . . chronic dissatisfaction with work represents a form of stress, and stress does eventually take its toll on the organism."

4. "People who feel positively about their work life are more apt to voice favorable sentiments about the organization to the community at large. This represents a public relations function in the best sense . . . ."

5. "In addition, people who like their job are easier to 'live with' inside the organization as well as outside it. A chronically upset person--whether it be boss, co-worker, or subordinate--makes organizational life more vexatious for those who have to interact with him or her."

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6. "Finally . . . higher job satisfaction tends to reduce absenteeism and turnover. These are not abstractions—they are calculable cost; and in some industries they represent the most significant portion of variable labor costs."

The assumption that organization structure is an appropriate variable in the investigation of employee job satisfaction has been questioned on several occasions. Some authors have suggested that structural variables serve only as surrogates for individual characteristics, such as age, level of education, etc., which really form the basis for the relationship with job satisfaction. In an effort to determine if these contentions are true, several groups of researchers have approached the problem of trying to decide which of the two groups of variables has the most effect on job satisfaction.

Herman and Hulin (1972) tested 307 managerial employees of a midwestern manufacturing plant and found that while both structural variables and demographic characteristics accounted for significant portions of the variance in the job satisfaction levels of employees, structural variables consistently accounted for a large percentage.

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Herman, Dunham and Hulin (1975) collected data from all 392 employees of a printing plant and found that when they compared the demographic and organizational structure indices, "the organizational-structure indices accounted for practically all the predictable variance in employee responses." They concluded by saying that:

It seems that employees adapt to their work environment. They evaluate their working conditions in a manner consistent with the other people in their immediate work group, no matter what their personal evaluation, based solely on their demographic background, might be. The characteristics of the situation appear to be exerting primary control over employee responses.

Further support for dominance of structural variables over demographic characteristics in accounting for the difference in job satisfaction levels among employees, has been offered by O'Reilly and Roberts (1975). In a study involving 578 officers and enlisted men in a naval unit, the researchers found a strong relationship between structural variables and job satisfaction, but a very weak relationship between individual characteristics and job satisfaction. Their findings led them to suggest "that one's affective

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2Ibid., p. 230.

responses to work are predominantly associated with organizational characteristics rather than individual ones.\textsuperscript{1}

If one accepts the assumptions that job satisfaction is a desirable state and that the structure of the organization affects the level of individual job satisfaction, then there are other justifications for the current study. First, there have been relatively few studies dealing with the interaction effect of several structural variables on the job satisfaction level of organization members. Secondly, the research that has been done has not been done within the retail merchandising area. In fact, to this writer's knowledge, there has not been any serious research concerning the relationship of job satisfaction to organization structural variables specifically aimed at the retail merchandising industry since Worthy's 1950 study.\textsuperscript{2} A third justification is that the literature indicates that a good deal of controversy still exists concerning the individual effects that the several structure variables have on job satisfaction. It is quite possible that these differences still exist simply because the researchers may have taken a naive approach to the problem and neglected to consider other structural variables that were also present.

The final justification for the current study, and perhaps the most significant, is the fact that nearly all

\textsuperscript{1}Ibid., pp. 148-9.

of the frequently cited research concerning the relationship between organization structural variables and employee job satisfaction has been done using a testing instrument that has recently received a great deal of criticism. The instrument in question is the Porter Need Satisfaction Questionnaire (PNSQ), developed by Lyman W. Porter for use in his research during the early 1960's and adopted for use by many other researchers since then. In fact, the PNSQ was so widely adopted by other researchers that it has been suggested that possibly much of the mutually supporting research on job satisfaction "may do little more than demonstrate a results-method dependency."2

The PNSQ is an instrument which measures need satisfaction based on a slightly modified version of Abraham Maslow's need hierarchy theory.3 The instrument consists of

1The Porter Need Satisfaction Questionnaire (PNSQ) has been widely used in satisfaction research since 1960. In research on tall vs. flat organizations the list includes: Porter and Lawler (1964); Porter and Siegel (1965); and Carpenter (1971). In research on large vs. small organizations the list includes: Porter (1963c); Strauser, Ivancevich, and Lyon (1969); and Cummings and El Salmi (1970). In research on organizational levels the list includes: Porter (1961); Haire, Ghiselli, and Porter (1963); Cummings and El Salmi (1970); Barbee (1972); and Leach (1974). In research concerning the interaction of organizational variables the list includes: Porter and Lawler (1964); Porter and Siegel (1965); El Salmi and Cummings (1968); and Lyon, Ivancevich and Donnelly (1971).


thirteen items designed to measure need satisfaction and need importance in each of five areas: security, social, esteem, autonomy, and self-actualization. For each of the thirteen items in the questionnaire, the respondents are asked to answer three questions:

- a. How much of the characteristic is there now connected with your management position?
- b. How much of the characteristic do you think should be connected with your management position?
- c. How important is this position characteristic to you?

The questions are scored on a seven point scale, with a score of one indicating a minimum score and a score of seven indicating a maximum score. An example of a typical item in the PNSQ looks like this:

1. The feeling of self-esteem a person gets from being in my management position:

   (Min.) (Max.)

   a. How much is there now?   1 2 3 4 5 6 7
   b. How much should there be? 1 2 3 4 5 6 7
   c. How important is this to me? 1 2 3 4 5 6 7

The degree of perceived need deficiency (dissatisfaction) for each of the items on the questionnaire is calculated by subtracting the value of answer (a) from the value of answer (b). Porter made the assumption that the smaller the deficiency (or "d") score, the smaller the degree of dissatisfaction or the greater the degree of job satisfaction.

---

With this brief description of the PNSQ, it is now possible to discuss some of the obvious criticisms of the instrument. Nicholas Imparato, in a 1972 article, presented perhaps the most comprehensive list of weaknesses of the PNSQ.\(^1\) Imparato started by questioning the structure of the questions asked to each subject, particularly question (b), which asked the subject to describe "How much of a characteristic should be included in his job?" Imparato felt that it was possible the response to this question "may index some pragmatic assessment of what can reasonably be expected from the job and not, as intended, an evaluation of what is a fair reward for the job."\(^2\) If this were the case, then the discrepancy scores would not be a true indicator of dissatisfaction.

Another source of criticism by Imparato was the fact that the questions of the PNSQ are generally very abstract in nature and require a high level of conceptualism to respond to them intelligently. He felt that because of the high level of verbal sophistication required, the educational level of the respondent could have a great deal to do with the answer obtained.\(^3\)

A third criticism is that "the PNSQ regards discrepancy scores of equal magnitudes as representing identical amounts

\(^{1}\)Nicholas Imparato, "Relationship Between Porter's Need Satisfaction Questionnaire and the Job Description Index," *Journal of Applied Psychology* 56 (1972): 397-405.

\(^{2}\)Ibid., p. 398.

\(^{3}\)Ibid., p. 399.
of satisfaction throughout the range of scale values."\(^1\) That is, a subject who marks "is there" at five and "should be" at seven has the same score as a subject who marks "is there" at one and "should be" at three. According to Porter's explanation the two subjects would have the same level of satisfaction. However, Imparato points out that there could be some significance associated with the position of the ratings on the seven point scale and that possibly the position of the "d" score may be an important variable itself, especially in determining the importance of the particular need to the individual.\(^2\)

Another criticism of the PNSQ pointed out by Imparato is the fact that it does not seem to provide an equal opportunity for both satisfaction and dissatisfaction. Porter assumes that the "should be" rating will always be equal to or greater than the "is there" ratings. This means that an "is there" rating of seven almost always results in a need deficiency score of zero, while an "is there" rating of one can produce need deficiency throughout the six point range. While one would expect Porter's assumptions to be the normal state of affairs, this peculiarity does point out a conceptual weakness in the instrument.\(^3\)

Berger and Cummings, when discussing the problems that the PNSQ presents when used as a measure of satisfaction,

\(^1\)Ibid., p. 400.
\(^2\)Ibid., p. 400.
\(^3\)Ibid., p. 403.
reached much the same conclusions as Imparato. The authors sum up their discussion by saying:

Unfortunately, these problems with the PNSQ affect many of the studies reviewed above. In fact, well over one third of the studies reviewed have used the PNSQ to measure need fulfillment and need satisfaction. In the most heavily researched area (hierarchical level) over half the studies reviewed have used the PNSQ. The general lack of reliability and validity evidence on the PNSQ, combined with the more consistent results found with better developed measures of satisfaction (e.g., Herman and Hulin, 1973) suggest that the most parsimonious explanation of the inconsistencies between structural variables and need satisfaction may simply be measurement error.1

Further criticisms of the PNSQ have been offered by Roberts, Walter, and Miles (1971), Herman and Hulin (1972), Wall and Payne (1973), and Herman and Hulin (1973).2 While the criticisms of the PNSQ are not sufficient to nullify the results that have been obtained using it, they are sufficient to warrant further investigation using a different testing instrument.

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Limitations

The current research effort is limited in several respects with most of the limitations being a result of sample design. Therefore, one must consider the following when attempting to interpret the results of the study:

1. All of the firms participating in the study are located in the southeastern United States. It is possible, perhaps even probable, that the data may contain some regional bias.

2. All of the firms participating in the study are part of the retail merchandising industry. This fact is especially important if one is tempted to extend the conclusions of this study and apply them to employees in other segments of the economy.

3. All of the firms participating in the study are independent or "home owned firms." This fact would preclude making assumptions about national chain operations or large retail groups based on the results obtained here.

4. The study includes only organization size, shape and level as structural variables. While these three are the ones most often used in previous studies, one could perhaps make a case for including some other structural variables.

Report Preview

The remainder of this report will consist of four chapters. Chapter II deals with the review of the literature concerning the relationship between organization structural variables and job satisfaction. The review will specifically examine the research evidence concerning the relationship between employee job satisfaction and organization shape, organization size, and organization level. Additionally,
the literature concerning the interaction effect that the three structural variables have on satisfaction will be reviewed.

Chapter III will discuss the methodology used during this research effort. This chapter will explain how the research sample was selected, will analyze the research instrument, will present the variables under investigation and the method of data collection, and will review the statistical techniques used in the analysis.

Chapter IV will consist of a discussion of the results and a presentation of the findings of the research effort.

Chapter V will be a summary chapter and will discuss the conclusions and implications of the study.
CHAPTER TWO

REVIEW OF THE LITERATURE

The investigations into the effects that organizational structural variables have on the attitudes and behavior of the members of the organization have produced considerable research covering a myriad of relationships. Among these many relationships have been some which are related to the subject under investigation in this treatise. Specifically, the review of the literature in this section will deal with three organizational structural variables and the effect that these variables have individually and collectively on employee job satisfaction. The structural variables to be examined are organization shape (that is, the degree to which an organization is either tall or flat), total organization size, organizational level, and the interaction effects of these three variables.

Tall vs. Flat Organizations

One of the first studies concerning the effects of organizational shape on employee job satisfaction was performed by James C. Worthy and the result reported in 1950.¹ Worthy, in a study covering almost 100,000 employees

of the Sears Roebuck Company over a twelve year period, concluded that flat organizations were generally superior to tall organizations. Worthy stated his conclusions by saying that "Flatter, less complex structures, with a maximum of administrative decentralization, tend to create a potential for improved attitudes, more effective supervision, and greater individual responsibility and initiative among employees. Moreover, arrangements of this type encourage the development of individual self-expression and creativity which are so necessary to the personal satisfaction of employees and which are an essential ingredient of the democratic way of life."\(^1\) It should be noted that Worthy's sample consisted almost entirely of non-management personnel and that he never published his statistical data nor described his method of analysis. Despite these limitations, Worthy's conclusions remained virtually unchallenged for almost twelve years and his views are still widely quoted today.

The next significant step, in the investigation of the effect of organizational shape on employee job satisfaction, was taken by Meltzer and Salter in 1962.\(^2\) In a survey study designed to test the degree of job satisfaction of 704 physiologists employed in research organizations, Meltzer and Salter found that there was generally an insignificant

\(^1\)Ibid., p. 179.

relationship between the level of job satisfaction of the employee and the shape of the organization. Their conclusions failed to confirm Worthy's view on the superiority of flat organizations over tall structures. However, it should be pointed out that the Meltzer and Salter sample dealt with small organizations (their largest category being fifty-one employees or more) and that their subjects were drawn from the professional ranks.

In the early 1960's, Lyman W. Porter began a series of studies on the effects of organization structural variables and employee job satisfaction using the shape of the organization as one of his independent variables. In a study conducted by Porter and E. E. Lawler, the 1900 managers that responded to their questionnaire were classified as being employed in organizations having either tall, intermediate, or flat structures. Using the PNSQ as their measuring instrument, the authors reported their findings by stating, "The results showed no clear over-all superiority of flat over tall organizations in producing greater need satisfaction among managers . . . A tall type of structure was associated with greater satisfactions in the security and social need areas, whereas a flat structure was associated with greater satisfaction in the self-actualization need area."  


Porter and Lawler further qualified their results by noting that the size of the organization seemed to have some effect on degree of employee satisfaction. When the data were segmented so that subjects employed by companies having less than five thousand employees formed one group and those employed by companies having five thousand or more employees formed another group, they found that the results differed from the overall results. In the smaller companies job satisfaction was greater in organizations having flat structures, while in those having more than five thousand employees the reverse was true. Once again, the composition of the sample is important in evaluating the results of the study. Porter and Lawler's sample consisted entirely of management personnel and was a randomly selected sample of managers at all levels of the managerial hierarchy in many different companies.

In 1965, Porter and Siegel essentially replicated the Porter and Lawler 1964 study, the difference being that the subjects were an international sample of middle and upper-level managerial personnel from thirteen countries. The results of this study generally agreed with the conclusions of the Porter and Lawler effort. Porter and Siegel found that overall there was no significant advantage for either tall or flat structures in producing job satisfaction among the three thousand subjects, but when the subjects were

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segmented into those employed by companies having less than five thousand employees and those employed by companies having more than five thousand employees, the results were slightly different. In the smaller companies flat structures once again produced higher job satisfaction levels than did the tall structures, but in the large companies the researchers found no significant difference between flat and tall structure.

A 1970 study conducted by Ghiselli and Johnson examined the relationship between need satisfaction and organizational success for 413 managers from a diverse group of organizations. Using a "slightly shortened version" of the Porter Need Satisfaction Questionnaire and classifying the subjects as being members of either tall or flat organizations, the authors found that for higher order needs (esteem, autonomy, and self-actualization) the correlation between need satisfaction and success was much higher for flat organizations than for tall organizations. The authors concluded by stating, "The empirical findings of the present investigation, then, support the hypothesis which was advanced earlier, and provide some confirmation for Worthy's (1950) position that flat organizations are superior to tall ones in encouraging individuality."

In 1971, Carpenter reported on a study concerning the relationship between organizational structure and the

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perceived job satisfaction of classroom teachers.\textsuperscript{1} Carpenter analyzed the job satisfaction levels of approximately 120 subjects classified as working for either tall, medium, or flat organizations and concluded that "formal organizational factors did influence teacher job perceptions."\textsuperscript{2} He found that subjects in flat organizations had higher levels of job satisfaction than those in medium or tall organizations. Although Carpenter's conclusions seemed to be consistent with the views of Worthy as well as the findings of Porter and Lawler and Porter and Siegel (for organizations having less than 5000 employees), they may be questioned on one point. Carpenter's findings were based on a relatively small total sample of only 120 subjects, which seems even smaller when you consider that this total was further subdivided into the three organizational classifications used in the study.

In 1975, Ivancevich and Donnelly reported on the results of a study concerning the relationship between organizational shape and the job satisfaction levels of 295 trade salesmen.\textsuperscript{3} The salesmen were all employed by

\textsuperscript{1}Harrell H. Carpenter, "Formal Organizational Structural Factors and Perceived Job Satisfaction of Classroom Teachers," \textit{Administrative Science Quarterly} 16 (1971): 460-65.

\textsuperscript{2}Ibid., p. 463.

three large national organizations which were classified as having either a tall, medium, or flat organizational structure. The authors found that "trade salesmen in the flat organization perceived more self-actualization and autonomy satisfaction . . . (but) there were no significant differences found on such job satisfaction facets as opportunities for innovativeness and social interaction, security, and pay." They go on to conclude that although there seems to be some differences in the way the salesmen in the three types of organizations perceived their jobs, "it would be erroneous to conclude that the flatter organization is unequivocally superior to the tall and medium organizations for trade salesmen."

The results of the above studies do not totally support Worthy's statement that a flat organization produces greater job satisfaction than a tall organization. Although several of the studies agreed with Worthy for some aspects of job satisfaction, at least one of the studies found no relationship between organizational shape and job satisfaction and two others concluded that for very large organizations a tall structure may produce higher levels of satisfaction than a flat structure. One can only conclude that further research is need to determine the effects that organizational shape has on the degree of job satisfaction of organizational members.

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1 Ibid., p. 279.

2 Ibid., p. 279.
Total Organization Size

The topic dealing with the effect of total organization size on employee attitudes and behavior is one that has not been heavily researched. In their 1965 review, Porter and Lawler indicated that most of the research they had found dealt with organizational subunit size, and its effect on job satisfaction, rather than total organization size. Based on their review of the literature the authors concluded that "overall, the findings relating total organization size to job attitudes do not present as clear a picture as is the case for findings dealing with subunit size."\(^1\)

One of the studies contained in the Porter and Lawler review is Benge's 1944 study. Benge's sample was taken from a number of different companies and included only those employees at the rank and file worker level. Based on his survey, Benge found that the "morale of employees of small companies is appreciably better than in large companies."\(^3\) This conclusion should be evaluated very carefully since Benge did not specify the size of his sample or the number of companies involved in his research.


\(^3\) Ibid., p. 104.
Another study reported by Porter and Lawler is Talacchi's 1960 study concerning the relationship of organizational size to individual attitudes and behavior. Although Talacchi describes his study as including ninety-three organizations, an investigation of the data indicates that at least forty-five of the ninety-three organizations are actually "plants" that comprise parts of only five different companies. The fact that Talacchi confused organizational subunits with total organization units causes some problems in evaluating the results of this study. Despite these problems, there does seem to be sufficient evidence to accept Talacchi's conclusion that a negative correlation exists between organizational size and employee satisfaction at the rank-and-file worker level. Talacchi's sample was taken from both manufacturing and non-manufacturing firms which ranged in size from less than 50 employees to almost 1800 employees.

In 1963, Porter published the results of a study dealing with the job satisfaction levels of more than 1500 managers in various sized companies. The managers were classified as being employed by either a small (less than 500 employees), a medium (500-4999 employees), or a large (5000 employees or more) company. Using the PNSQ as his

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testing instrument, Porter concluded that there were no significant differences between the levels of managerial satisfaction in either of the three size classifications. Although Porter could not confirm the superiority of small organizations over large organizations as suggested by Benge and Talacchi, he did note that some differences might show up if one considered the organization level of the managers as well as the size of the organization. For instance, he noted that "at the lower and lower-middle management levels, managers from smaller companies were more satisfied than those from larger companies,"¹ while at the higher management levels he found that managers from large companies were more satisfied. Another important distinction between Porter's study and the two conducted by Benge and Talacchi is that Porter sampled only management personnel while both Benge and Talacchi dealt only with rank-and-file workers.

In 1966, Lawler and Porter conducted a study which examined the relationship between satisfaction with pay and six "demographic characteristics," one of which was total organization size. The sample consisted of 1916 managers from various companies throughout the United States and used a modified version of the PNSQ as the measuring instrument. The authors concluded that, "undoubtedly managers' satisfaction with pay does bear a lawful relationship to some factors; however, the present study suggests that such

demographic variables as age, education, company size, seniority and line/staff position are not important determinants of it."¹

Since the studies conducted by Porter and his associates in the 1960's, there have been several attempts to settle the issue concerning the effect of organization size on employee job satisfaction, but they have been largely inconclusive. In 1969, Strawser, Ivancevich, and Lyon examined the job satisfaction levels of 269 accountants in large and small CPA firms. Using a modified version of the PNSQ and classifying their respondents as being affiliated with either a "Big Eight" firm or a "Non-Big Eight" firm, the authors concluded that "in each case where statistically significant differences were found, accountants in small firms reported less perceived need satisfaction than CPA's employed by large firms."²

In 1970, Geoffrey Ingham published a substantial study dealing with organizational size and worker behavior. In one of his many conclusions, Ingham reported that there seemed to be little difference in the level of satisfaction with wages between employees of small firms and the employees of large firms. He summarized by saying, "the most important


point about these data on the level of satisfaction is the marked similarity of the responses from the workers in the large and small organizations."¹

Cummings and El Salmi, also in a study conducted in 1970, surveyed 456 managers using essentially the same classification system as was used in the studies conducted by Porter, and concluded that "company size was not related to managers' perceptions of need fulfillment deficiency."²

The relationship between organization size and job satisfaction becomes even more clouded based on two studies conducted in recent years. In 1973, Parr sampled ninety-six agri-business firms and reported that he found an inverse relationship between size of the firm and the level of job satisfaction of the employees.³ In 1975, Osborn and Hunt surveyed members of sixty chapters of an undergraduate business fraternity and found that "size was found to be positively related to satisfaction with work and to overall satisfaction."⁴


Based on the information available from previous research concerning the relationship between size and job satisfaction several conclusions are possible. One might conclude that there is a positive correlation between size and satisfaction (supported by two studies), that there is a negative correlation between size and satisfaction (supported by three studies), or one may conclude (as four of the studies did) that no relationship exists. Perhaps the safest and most appropriate conclusion is that at this time the true relationship between organization size and employee job satisfaction is not apparent.

**Organizational Levels**

The research examining the effect of the employee's level within the organization upon his degree of job satisfaction has taken two approaches. Early research into this subject invariably compared the satisfaction levels of the rank-and-file worker to that of management personnel or it attempted to correlate the level of satisfaction of managers to their level in the managerial hierarchy.

In an article published in 1957, Herzberg, Mauser, Peterson, and Capwell summarized the literature through 1954 pertaining to job satisfaction and its relationship to organization levels. The authors stated that "one unequivocal fact emerges from the studies of job satisfaction;

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the higher the level of occupation, the higher the morale."\(^1\)

The Herzberg review cited, as evidence of their conclusions, four studies which indicated that supervisory personnel perceived higher levels of job satisfaction than were perceived by the workers that they supervised.\(^2\)

In a study not reported in the Herzberg review, Morse (1953) compared the satisfaction levels of sixty-one supervisory personnel to the six hundred workers being supervised and reached the following conclusion:

The supervisors are considerably more satisfied with their jobs and with the company as a place to work. They are somewhat less satisfied than the employees with their salaries and are about equal in satisfaction with the employees regarding the advancement they have received in the company.\(^3\)

Morse seemed to generally agree with the conclusions reached in the Herzberg review, but pointed out some areas where satisfaction levels for supervisors may not be higher than those of rank-and-file workers.

Further support for the Herzberg conclusion was provided by Handyside (1961) in a study of 30 managers and

\(^{1}\)Ibid., p. 20.


\(^{3}\)Nancy C. Morse, Satisfactions in the White-Collar Job (University of Michigan, Ann Arbor, 1953).
467 production workers. As a result of his research, Handyside concluded that job satisfaction was higher for managerial personnel than it was for production workers.

Additionally, there has been substantial research into job satisfaction at the managerial level. Generally speaking, the results have been consistent with those found when comparing rank-and-file workers to their supervisors. That is, the higher an individual is in the managerial hierarchy, the higher his level of job satisfaction. Porter and Lawler, summarizing the literature to 1965, stated that "recent studies, plus one appearing prior to the Herzberg review, seem to be nearly unanimous in concluding that job satisfaction or morale does increase monotonically with increasing levels of management." The studies referred to in the Porter and Lawler review were Browne and Neitzel (1952), Porter (1961), Rosen (1961), Porter (1962), Opinion research Corporation (1962), and Haire, Ghiselli, and Porter (1963).


Since the Porter and Lawler 1965 review, there have been many additions to the literature concerning job satisfaction and organizational level. One of the more interesting was a 1966 study by Edwin L. Miller which examined the satisfaction levels of "randomly-selected national level union officials." The sample consisted of 171 officials from both craft and industrial unions. Using the PNSQ, the author concluded that higher level officers were more satisfied than lower level officers. However, when the data were segmented further, the researchers found that the data from craft unions strongly supported the findings while the data from industrial unions only marginally supported the findings. These facts are significant since previous studies generally had lumped all respondents together (regardless of industry, area of specialization, etc.) and had assumed that the overall results applied to each of the sub-groups within the population.

In 1967, Porter and Mitchell surveyed 1297 commissioned and non-commissioned officers of the United States Air Force using a modified version of the PNSQ. The data

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were classified into three groups of commissioned officers and three groupings of non-commissioned officers. The results of the questionnaires indicated that within the two groupings satisfaction generally increased as rank (level in the organization) increased. That is, generals were more satisfied than majors and majors were more satisfied than lieutenants. In the noncommissioned ranks, chief master sergeants and technical sergeants reported about the same level of satisfaction and both ranks were more satisfied than staff sergeants. The most interesting result was that the middle and higher ranking NCO's reported consistently higher levels of satisfaction than did the lower ranking commissioned officers. In fact, both groups of NCO's reported values as high as those reported by the group consisting of majors and lieutenant colonels. The authors explained this apparent inconsistency by concluding that:

. . . there were clearly two sets of hierarchical relationships, one for commissioned officers and another for the non-commissioned. . . . it appears that each category of respondents (enlisted men and officers) used its own group as a frame of reference in responding to the questionnaire.¹

However, the inconsistency in the enlisted ranks prevents one from concluding that the hypothesis of increasing need satisfaction as one goes up the hierarchy was totally supported.

¹Ibid., pp. 143-44.
In 1968, Johnson and Marcrum reported on a similar study involving 504 officers of the United States Army in the ranks of captain through colonel. Reporting on the level of need deficiency as measured by the PNSQ the authors reported that:

.... with six of the nine needs, the captains' score is higher than the majors' score and the majors' score is higher than the colonels' score. This suggests of course that need-fulfillment opportunities are better at successively higher levels in the organizational hierarchy. ¹

In an attempt to replicate the Porter studies of the 1960's, Rhinehart, et. al. surveyed 2026 managers in the Veterans Administration's Department of Medicine and Surgery. The respondents were classified into four levels of management and were tested using the PNSQ. The results of the questionnaire indicated that satisfaction tended to decrease with each successive lower level of management.²

In 1970, Lichtman conducted a study involving ninety-five employees of a government agency. Using a measure of satisfaction developed by Harris (1949), and classifying his respondents as either managers, supervisors or workers,


Lichtman found that job satisfaction increased as organizational level increased.¹

In a similar study conducted in 1971, Slocum compared the job satisfaction levels of 123 top and middle-level managers to 87 first-line supervisors. The respondents, who were employees of a steel plant in central Pennsylvania, were asked to complete the PNSQ. In the discussion of his results the author stated that, "the higher levels of management, on the whole, reported greater degrees of need satisfaction in their jobs than did lower level managers."²

In 1973, Herman and Hulin attempted to replicate some of the earlier research concerning job satisfaction and organizational level. Using both the PNSQ and the Job Descriptive Index (JDI),³ as their measuring instruments, the authors questioned four levels of supervisory personnel of a midwestern manufacturing plant. The results obtained from the 174 respondents produced mixed results. According to the authors, "the managerial level-job satisfaction hypothesis failed to replicate on the need satisfaction


scales (PNSQ) but found support with the JDI variables.\textsuperscript{1} This inconsistency led the authors to speculate that "the lack of convergence and failure to replicate casts doubt on the conclusions about job satisfaction drawn from the research on the Porter Need Satisfaction Questionnaire."\textsuperscript{2}

In 1974, Locke and Whiting compared the job satisfaction levels of white-collar workers to blue-collar workers using 911 employees of the solid waste management industry as their sample. Using a seven-point "faces" scale with verbal anchors as their measure of overall satisfaction, and an additional indirect measure of satisfaction, the authors concluded that white-collar workers were more satisfied with their jobs than were blue-collar workers. However, when one examines the results more closely one finds that there seems to be almost no difference in the satisfaction scores of the three levels of white-collar workers, (secretarial/clerical, supervisory, and managerial) and in fact the secretarial/clerical group reported higher mean scores on both measures of satisfaction than did the higher level white-collar workers. The authors failed to report whether the differences between the three classifications of white-collar workers were significant since the focus on their study was white-collar vs. blue-collar. In


\textsuperscript{2}Ibid., p. 124.
spite of the lack of statistical information, one must conclude that the hypothesis stating that satisfaction increases with each successive level in the organization was not supported by this study.\(^1\)

Newman, in a study conducted in 1970, surveyed 710 employees representing all levels of a large insurance company. Using the JDI as his testing instrument, the author found a positive correlation between the five aspects of job satisfaction measured by the JDI and the hierarchical level. While the analysis performed by Newman did not test to determine if the difference between each successive organizational level was significant, it did provide evidence that the direction of the relationship agreed with much of the previous research.\(^2\)

In 1976, Szilagyi, Sims and Keller compared the satisfaction levels of two samples. The first sample consisted of 931 hospital employees occupying 5 organizational levels while the second sample consisted of 174 members of a manufacturing firm in 3 occupational levels. Using the JDI, the authors found that for the hospital sample occupational level was positively correlated to satisfaction with work, pay, supervision, and co-workers.


However, the results of the manufacturing data indicated that only satisfaction with work and co-workers were positively correlated to organizational level. The apparent differences between the two samples raises further doubts concerning the actual relationship between job satisfaction and organization level.¹

The conclusions concerning the relationship between job satisfaction and organization level are not as clear as some writers would have us believe. Of the twenty-two studies reviewed here, sixteen seem to fully support the hypothesis that satisfaction increases with each successive level in the organization. However, one cannot discount the six studies that could not support the hypothesis. These six studies, using various testing instruments and sophisticated statistical techniques, would seem to be sufficient reason to call for further research to help resolve the inconsistency in the literature.

Interaction of Organizational Structural Variables

Studies that have examined the job satisfaction levels of employees as a function of the interaction of several organizational structural variables are rare even though the need for such research has been recognized for quite some time. Porter and Lawler (1965), in suggesting

areas for future research stated:

First, we would suggest that future research investigations in this area must be addressed to more complex questions. It seems evident that a great deal more attention has to be given to the possible interrelationships between and among different organizational structural variables than has been the case so far . . . . Too much previous theorizing in the area of organizations has neglected such interaction possibilities and hence there has been an unfortunate tendency to oversimplify vastly the effects of particular variables.¹

Vroom also encouraged more sophisticated research when he stated that he hoped "to see researchers begin to turn their attention from relatively simple problems involving only two variables to more complicated problems involving interaction among variables."²

Despite the urgings of these two scholars, very little has been done concerning the interrelationship of structural variables and their effect on employee job satisfaction levels. In research cited earlier in this review, Porter hinted that certain interrelationships existed between the two independent variables, managerial level and company size, and that this interaction produced different conclusions concerning employee job satisfaction than either of the variables produced separately.³ Another possible interaction


effect was noted in studies by Porter and Lawler, \(^1\) and Porter and Siegel, \(^2\) both of which suggested that organization shape (degree of tallness or flatness) interacted with company size in determining the level of managerial satisfaction.

One of the first studies to address itself specifically to determining the interaction effect of more than one organizational structural variable on job satisfaction was conducted by El Salmi and Cummings in 1968. \(^3\) Using the PNSQ, the authors sampled a cross-section of 450 managers from various industries and selected job level, total company size, organization shape and line vs. staff type of job as their four structural variables. El Salmi and Cummings segmented their data in such a way that they could determine the effects on managerial satisfaction of the interaction between job level and total size, of job level and organizational shape, and of job level and line/staff type of job. Surprisingly, they did not report on the interaction between line/staff type of job and company size, between organizational shape and company size, between line/


staff type of job and organizational shape, nor did they examine more than two variables at any one time.

When El Salmi and Cummings examined the interaction between job level and total organization size, they found that "at the top management level, small-sized companies produced significantly more need fulfillment than larger-sized companies . . . . On the other hand, at the middle and lower-middle levels, larger-sized companies produce more need fulfillment than smaller-sized companies."¹ These findings directly contradict those reported by Porter in his 1963 study where he found a highly significant relationship between these two independent variables and job satisfaction, but in the opposite direction.

The interaction between job level and organizational shape also produced some interesting effects on managerial job satisfaction. At the top levels of management, El Salmi and Cummings found that tall structures produced higher levels of job satisfaction than either intermediate or flat structures, while at the lower levels of management, tall structures produced lower levels of job satisfaction than either of the other two. The consideration of organizational level along with organization shape may help to explain the conflicting results that were reported when structure and/or level were considered alone.

¹Ibid., pp. 469-70.
Although El Salmi and Cummings included the interactions between job level and line/staff type of job in their study, the results will not be discussed since line vs. staff type of job is not one of the independent variables to be used in this study.

Overall, El Salmi and Cummings felt that "significant interaction effects were found among organizational variables as they relate to managerial motivation . . . (and) concluded that it is inadequate to explain managerial motivation in terms of any one organizational variable alone."¹

Another study which examined the interaction of structural variables, though not on as large a scale as the El Salmi and Cummings effort, was one which looked at the relationship between job level and job satisfaction, total organization size and job satisfaction, and the combined interaction effect of the two independent variables on job satisfaction. In an article published in 1971, Lyon, Ivancevich, and Donnelly reported on a sample of 192 management scientists taken from a cross-section of the membership of a management scientists professional society.² The authors found that, when considered alone, size had no effect on the satisfaction level of the subjects, but

¹Ibid., p. 478.

that organization levels did have a significant impact on satisfaction, with satisfaction increasing as the subject's level in the organization increased. When the interactions between the two variables were considered, the authors found that there were no significant relationships. That is, in this study, high level management scientists in large companies were just as satisfied as the high level management scientists in small companies and the lower level management scientists in larger companies were just as satisfied as the lower level management scientists in small companies.

The results of this study should be evaluated very carefully for several reasons. First, the size of the sample was relatively small, and secondly, the sample was taken from a highly specialized group performing unique functions within their respective organizations which makes comparison with other groups of managers very difficult.

The paucity of studies dealing with the interaction effect of organizational structure variables and their relationship to employee job satisfaction suggests the naive approach that has generally been taken by researchers in the past. Based upon the few studies that have been done and the insight that has been provided by them, one can only conclude that further, more complex research is required.

Conclusions Based Upon The Review of the Literature

The studies reviewed in this chapter indicate that there is sufficient justification for further research into
the relationship between organization structural variables and employee job satisfaction. Specifically, one finds that there are contradictions in the literature dealing with all three of the variables reviewed; that there has been very little research done where the interactions effect of variables were considered; and that much of the previous research has been conducted using a testing instrument that has been highly criticized.
CHAPTER THREE

METHODOLOGY

The experimental design for this study was constructed in such a way as to assess the effects that organization size, shape and level have individually and collectively upon employee job satisfaction. In order to test for these effects, it was necessary to collect data from four distinctly different types of organizations; large-tall organizations, large-flat organizations, small-tall organizations and small-flat organizations. In addition, the firms selected needed to have at least three distinct levels in the organizational hierarchy since responses were required from employees classified as top managers, middle managers and rank-and-file workers.

This chapter will describe the respondents making up the research sample; will explain the classification systems used for size, shape and level; will describe the research instrument; will discuss the statistical technique used in the data analysis; and finally present the hypotheses to be tested.

The Research Sample

The research sample consisted of 317 employees of twelve independently owned retail merchandising firms in the southeastern United States.
Retail merchandising firms or "department stores" were selected to be the universe because of the large number of retail firms that were potentially available in any reasonably sized geographic area and because, to the author's knowledge, no research dealing with job satisfaction has been done in this segment of the economy since Worthy's landmark study of 1950. The southeastern United States was chosen because it was an area familiar to the author and because it was small enough to be convenient for travel and communication yet large enough to provide an adequate sample.

The twelve firms, three in each of the four "Size-Shape" categories, were required to be independent or "home-owned" organizations in order to simplify classification by size and shape. This proved to be a significant requirement since most large department stores are either part of a well-known chain (i.e., Sears, Penney's, Montgomery Ward, etc.) or part of a lesser-publicized merchandising holding company (i.e., United, Mercantile, Federated, etc.). Firms falling into either of these two categories were eliminated from the sample because classification of the respondents would have been extremely difficult due to the complexity and/or ambiguity of the organizations, and because of the possible perceptual problems concerning organizational hierarchy that the employees of these types of organizations might have when answering the questionnaire.
In each of the twelve firms, up to thirty employees were asked to complete the questionnaire. Ideally, the sample was to consist of five responses from top managers, five responses from middle managers and twenty responses from sales clerks (rank-and-file workers). In some cases these figures had to be modified to match organizational and sampling limitations. For instance, the owners of the firms were not asked to complete the questionnaire since many of the questions were not applicable to them. This caused the number of responses from top management to be less than five in nine of the twelve cases. Other sampling requirements that caused the number of valid responses to vary was the stipulation that all respondents must be classified as permanent employees and that all questionnaires must be accurately coded and completely answered. The usable responses varied from twenty for one of the small firms to thirty for several firms, with most being in the high twenties.

The respondents within each of the participating firms were carefully selected from the pool of employees meeting the sampling requirements. In four of the firms, the researcher personally selected the employees from the personnel files of the company and administered the questionnaire. In the other eight cases, the "in-house" individual responsible for selecting the respondents and administering the questionnaire (usually a member of the firm's personnel department) was carefully instructed, during personal
conversations with the researcher, as to the procedures to be used in order to prevent sampling bias. The firms were instructed not to consider age, sex, tenure, race, educational level, or level or productivity when selecting respondents. The firms were further instructed that only those employees involved in the sales and merchandising functions within the firm were to be included in the sample. This stipulation eliminated, for consistency reasons, staff, clerical, warehouse, maintenance and other non-sales personnel from the sample. To the researcher's knowledge, these instructions were strictly adhered to by all participating firms.

Classification of Firms by Size

The participating firms were classified as being either a large firm or a small firm based on the number of permanent employees. The term "permanent employee" was used instead of "full-time employee" because the investigation indicated that many retail stores employ a substantial number of workers who work less than the traditional forty hours per week. Employees falling into this classification should not be classified as part-time employees since these workers generally follow a specific work schedule and most have worked for the firm for many years. Employees falling into this category were included in the size calculation, while workers hired during seasonal peaks or on a temporary basis were not included.

Using the number of permanent employees as a yardstick, firms having more than fifty but less than one
thousand employees were classified as small firms while those having more than one thousand employees were classified as large firms. While the parameters of the classification system were somewhat arbitrary, the limits did seem justified due to the natural grouping of the data. The actual range for small firms was from 125 to 850 employees and for the large firms the range was from 1100 to 12,000 employees. When considering independently owned retail department stores these figures represent almost the entire range available from the population.

Classification of Firms by Shape

The twelve firms comprising the sample were classified as having either a tall structure or a flat structure based on the ratio of the number of employees in the organization to the number of levels in the organization. The firms were first segmented by size (large or small), and then were classified as tall or flat within each size classification. This method, which has been widely used in previous research, was necessary because of the inherent mathematical problems that occur when trying to compare the relative tallness or flatness of firms that vary considerably in size. One can see that when using the ratio method the denominator, which represents the number of levels in the organization, is not likely to vary greatly (for instance from four to eight) while the numerator, which represents the number of employees

\[\text{For instance see Porter and Lawler (1964); Porter and Siegel (1965); El Salmi and Cummings (1968); Ghiselli and Johnson (1972); and Ghiselli and Siegel (1972).}\]
in the firm, is likely to vary considerably (from 125 to 12000). Given the extreme variation of numerator, the ratio has meaning only if the firms are classified by shape within their respective size categories. Using this system, the participating firms were selected so that there were three flat firms and three tall firms within each of the two size categories.

Classification of Respondents by Organizational Level

The 317 employees that responded to the questionnaire were classified as being top managers, middle managers or rank-and-file workers based upon the position each occupied in his or her organization. Generally speaking, the top two levels in the organization were classified as top managers, all other managers were classified as middle managers, and sales clerks were classified as rank-and-file workers. This system was appropriate in all of the firms except the three smallest stores where there were only three levels in the hierarchy other than the owner-manager of the firm. In these three cases, the level below the owners (i.e., store managers) were classified as top managers, the remaining managerial level (department managers) were classified as middle managers and sales clerks made up the lowest classification.

Analysis of the Research Instrument

The testing instrument used in this study was the Job Descriptive Index (Appendix A) developed by Smith, Kendall and Hulin during the course of the Cornell studies.
on job satisfaction in 1969.\(^1\) The Job Description Index (JDI) is a highly reliable instrument which has been used in over three hundred job satisfaction studies.\(^2\) The JDI measures job satisfaction over five areas of a job. The areas measured are the work itself, supervision, present pay, opportunities for promotion, and coworkers. For each of the five areas the subject is asked to indicate if a list of adjectives or short phrases apply to his or her job. If the word applies, they are asked to write "Y" next to the item, if it does not apply they are asked to write "N" before the item, and if they are not sure they are asked to mark the item with a "?". Each of the five parts in the JDI is scored separately with three points awarded for each favorable answer, one point for each question mark or omission, and zero points for each unfavorable answer. Three of the measures (work, supervision and coworkers) have eighteen items which must be answered and which, if all are answered favorably, can produce a raw score of fifty-four. The other two measures (pay and promotion) have only nine items each and the raw score for these two measures must be doubled to produce a comparable raw score.


\(^2\)This information was furnished by the Psychology Department, Bowling Green State University. Dr. Patricia Smith, one of the developers of the JDI is a member of the faculty at Bowling Green and the University holds the copyright on the instrument.
Intuitively, one can appreciate the additional understanding that naturally occurs when one measures five aspects of a variable rather than limiting oneself to a global measure of the variable. This feature of the JDI makes the researcher aware of the specific areas of satisfaction and prevents the possibility of an area of dissatisfaction being "cancelled out" by an area of satisfaction as might be the case if a global measure was used.

Another feature of the JDI is that the respondents are not asked directly how satisfied they are with their work, but rather are asked to describe their work. This feature produces responses that "have a job-referent rather than a self-referent."¹ As the developers of the instrument explain, "the descriptive format is used because we feel that describing some specific aspect of a job is easier than trying to describe internal states of feeling, particularly for less verbal and for poorly educated subjects."²

The final justification for using the JDI is the obvious high regard that many researchers have for it based upon its wide usage. The respect that researchers have for the instrument is perhaps best illustrated by Victor Vroom's statement that the JDI "... is without


²Ibid., p. 71.
doubt the most carefully constructed measure of job satisfaction in existence today . . . ."\(^1\)

**Statistical Analysis**

The study's data base was analyzed through the use of a statistical technique known as three-factor factorial analysis of variance (ANOVA). ANOVA is a test to determine if a set of two or more sample means can be assumed to be from the same population, and if the means differ, is the variance more than could be expected from chance alone. In the test to determine the significance of the difference between the means, the F-distribution is used as the test statistic.

The statistical analysis in the study was performed using a packaged program which was part of the statistical package for the social sciences (SPSS). As the developers of the system explained in the introduction of their manual, the SPSS:

> . . . is an integrated system of computer programs designed for the analysis of social science data. The system provides a unified and comprehensive package that enables the user to perform many different types of data analysis in a simple and convenient manner.\(^2\)

---


Since its development in 1970, the SPSS system has been adopted by nearly 600 installations.¹

The data were analyzed to isolate the effects of the three structural variables (size, shape, level) on job satisfaction and to identify any interactions that were present. The ANOVA technique was used to produce a set of results for each of the five job satisfaction indices in the JDI (see Figure 1). Using this approach, one can see that there were five separate sets of hypotheses that were tested. For the hypotheses that were rejected, the data were further analyzed in tabular form to determine the direction of the variance. The specific techniques of the analysis will be described in more detail in Chapter four.

Statement of the Hypotheses

As a result of the literature review presented in chapter two, the following general hypotheses are proposed:

I. That organizational shape has an effect upon employee job satisfaction and that employees of flat firms are more satisfied than employees of tall firms.

II. That organizational size has an effect upon employee job satisfaction and that employees of large companies are more satisfied than employees of small companies.

III. That organizational level has an effect upon employee job satisfaction and that satisfaction increases with each successively higher level in the organizational hierarchy.

¹Ibid., p. XXI.
FIGURE 1

Typical ANOVA Matrix for Each of the Five JDI Satisfaction Indices

Top Managers

Middle Managers

Rank-and-file Workers

Large

Small

Tall Flat

Tall Flat

Large

Small
IV. That organizational shape, size and level combine to produce an interaction effect on employee job satisfaction, and that the interaction effect may explain the inconsistencies that may be experienced when each is considered separately.

In order to test the validity of the general hypotheses, it is necessary that they be restated in terms of the specific measures of satisfaction used in the testing instrument. Therefore, the specific null hypotheses that correspond to the general hypotheses are as follows:

AI. Level in the organizational hierarchy does not have an effect upon employee satisfaction with work on their present job.

AII. Organization size does not have an effect upon employee satisfaction with work on their present job.

AIII. Organization shape does not have an effect upon employee satisfaction with work on their present job.

AIV. There is no interaction between the level in the organization hierarchy and organization size with respect to employee satisfaction with work on their present job.

AV. There is no interaction between the level in the organization hierarchy and organization shape with respect to employee satisfaction with work on their present job.

AVI. There is no interaction between organization size and organization shape with respect to employee satisfaction with work on their present job.

AVII. There is no three-factor interaction between level in the organization, organization size and organization shape which affects the degree of employee satisfaction with work on their present job.

BI. Level in the organizational hierarchy does not have an effect upon employee satisfaction with present pay.
BII. Organization size does not have an effect upon employee satisfaction with present pay.

BIII. Organization shape does not have an effect upon employee satisfaction with present pay.

BIV. There is no interaction between the level in the organization hierarchy and organization size with respect to employee satisfaction with present pay.

BV. There is no interaction between the level in the organization hierarchy and organization shape with respect to employee satisfaction with present pay.

BVI. There is no interaction between organization size and organization shape with respect to employee satisfaction with present pay.

BVII. There is no three-factor interaction between level in the organization, organization size and organization shape which affects the degree of employee satisfaction with present pay.

CI. Level in the organizational hierarchy does not have an effect upon employee satisfaction with opportunities for promotion.

CII. Organization size does not have an effect upon employee satisfaction with opportunities for promotion.

CIII. Organization shape does not have an effect upon employee satisfaction with opportunities for promotion.

CIV. There is no interaction between the level in the organization hierarchy and organization size with respect to employee satisfaction with opportunities for promotion.

CV. There is no interaction between the level in the organization hierarchy and organization shape with respect to employee satisfaction with opportunities for promotion.
CVI. There is no interaction between organization size and organization shape with respect to employee satisfaction with opportunities for promotion.

CVII. There is no three-factor interaction between level in the organization, organization size and organization shape which affects the degree of employee satisfaction with opportunities for promotion.

DI. Level in the organizational hierarchy does not have an effect upon employee satisfaction with supervision on their present job.

DII. Organization size does not have an effect upon employee satisfaction with supervision on their present job.

DIII. Organization shape does not have an effect upon employee satisfaction with supervision on their present job.

DIV. There is no interaction between the level in the organization hierarchy and organization size with respect to employee satisfaction with supervision on their present job.

DV. There is no interaction between the level in the organization hierarchy and organization shape with respect to employee satisfaction with supervision on their present job.

DVI. There is no interaction between organization size and organization shape with respect to employee satisfaction with supervision on their present job.

DVII. There is no three-factor interaction between level in the organization, organization size and organization shape which affects the degree of employee satisfaction with supervision on their present job.

EI. Level in the organizational hierarchy does not have an effect upon employee satisfaction with coworkers on their present job.

EII. Organization size does not have an effect upon employee satisfaction with coworkers on their present job.
EIII. Organization shape does not have an effect upon employee satisfaction with coworkers on their present job.

EIV. There is no interaction between the level in the organization hierarchy and organization size with respect to employee satisfaction with coworkers on their present job.

EV. There is no interaction between the level in the organization hierarchy and organization shape with respect to employee satisfaction with coworkers on their present job.

EV1. There is no interaction between organization size and organization shape with respect to employee satisfaction with people on their present job.

EVII. There is no three-factor interaction between level in the organization, organization size and organization shape which affects the degree of employee satisfaction with people on their present job.
CHAPTER FOUR

RESULTS OF THE DATA ANALYSIS

The Research Sample

The research design specified that 360 responses be collected from the twelve participating firms. Ideally, the sample should have consisted of five top managers, five middle managers and twenty non-managers from each firm. However, after discarding incomplete questionnaires and allowing for the fact that some of the smaller firms could not meet the numerical requirements for each level, the final sample consisted of 317 usable responses. The breakdown of responses by firm is shown in table 1.

For statistical purposes, the firms were also classified by size and shape. Firms having more than 50 but less than 1000 employees were classified as small firms, and companies having more than 1000 employees were classified as large firms. Within each of the two size classifications, the participating firms were classified as having either a tall or flat organization structure based on the ratio of the number of employees to the number of levels in the organization. The classification of each of the twelve firms by size and shape is shown in table 2.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Top Managers</th>
<th>Middle Managers</th>
<th>Non Managers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>20</td>
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<tr>
<td>02</td>
<td>4</td>
<td>5</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>03</td>
<td>4</td>
<td>6</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>04</td>
<td>5</td>
<td>5</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>05</td>
<td>5</td>
<td>4</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>06</td>
<td>3</td>
<td>5</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>07</td>
<td>2</td>
<td>6</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>08</td>
<td>1</td>
<td>5</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>09</td>
<td>4</td>
<td>8</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>6</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>5</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>7</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>68</td>
<td>206</td>
<td>317</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SMALL FIRMS</th>
<th>Number of Employees (E)</th>
<th>Number of Levels (L)</th>
<th>(E/L)</th>
<th>Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>(more than 50 but less than 1000 employees)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>275</td>
<td>4</td>
<td>69</td>
<td>Flat</td>
</tr>
<tr>
<td>03</td>
<td>850</td>
<td>6</td>
<td>142</td>
<td>Flat</td>
</tr>
<tr>
<td>06</td>
<td>150</td>
<td>5</td>
<td>30</td>
<td>Tall</td>
</tr>
<tr>
<td>08</td>
<td>125</td>
<td>5</td>
<td>25</td>
<td>Tall</td>
</tr>
<tr>
<td>10</td>
<td>550</td>
<td>7</td>
<td>79</td>
<td>Flat</td>
</tr>
<tr>
<td>12</td>
<td>200</td>
<td>6</td>
<td>33</td>
<td>Tall</td>
</tr>
<tr>
<td></td>
<td>Number of Employees (E)</td>
<td>Number of Levels (L)</td>
<td>(E/L)</td>
<td>Shape</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------</td>
<td>----------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>02</td>
<td>4500</td>
<td>7</td>
<td>643</td>
<td>Flat</td>
</tr>
<tr>
<td>04</td>
<td>12000</td>
<td>8</td>
<td>1500</td>
<td>Flat</td>
</tr>
<tr>
<td>05</td>
<td>1100</td>
<td>7</td>
<td>157</td>
<td>Tall</td>
</tr>
<tr>
<td>07</td>
<td>1400</td>
<td>6</td>
<td>233</td>
<td>Tall</td>
</tr>
<tr>
<td>09</td>
<td>1100</td>
<td>6</td>
<td>183</td>
<td>Tall</td>
</tr>
<tr>
<td>11</td>
<td>3550</td>
<td>7</td>
<td>507</td>
<td>Flat</td>
</tr>
</tbody>
</table>

Statistical Analysis Techniques

The data were analyzed using three factor factorial analysis of variance (ANOVA). This technique tests the hypothesis that the means being examined are all equal, and that they are also equal to some population mean. That is:

$$H_0: u_1 = u_2 = u_3 = \ldots = u_r = (u_0)$$

The ANOVA technique uses the F distribution as the test statistic, with the null hypothesis being rejected if even one of the means under examination deviates from the stated equality. For instance, when comparing the mean satisfaction scores of members of large firms ($\bar{x}_1$) with members of small firms ($\bar{x}_2$), an F statistic sufficiently large to cause the null hypothesis to be rejected would indicate that members of large firms are more satisfied than members of small firms (assuming $\bar{x}_1$ is larger than $\bar{x}_2$). This technique produces very clear results when comparing two means.
An entirely different situation arises however, when one wishes to compare more than two means. For instance, one might wish to compare the mean satisfaction scores of employees occupying three separate levels in the hierarchy of an organization. Imagine a situation, as is the case with the current study, where one is comparing the satisfaction scores of top managers ($\bar{X}_1$), middle managers ($\bar{X}_2$) and non-managers ($\bar{X}_3$). An F statistic, generated by the ANOVA process, sufficiently large to allow rejection of the null hypothesis (that the three means are equal) only indicates that at least one of the three means is significantly different from one of the other two. Even if inspection reveals that $\bar{X}_1 > \bar{X}_2 > \bar{X}_3$ one cannot be sure if the significant difference indicated by the F test is between $\bar{X}_1$ and $\bar{X}_2$, between $\bar{X}_2$ and $\bar{X}_3$, between $\bar{X}_1$ and $\bar{X}_3$ or between each pair of means. This means that one cannot say with any degree of certainty that top managers are more satisfied than middle managers, or if middle managers are more satisfied than non-managers. This proves to be a significant obstacle if one's hypothesis is that satisfaction increases with each higher level in the organization hierarchy.

Fortunately, there is an additional statistical technique that will resolve the questions left unanswered by the ANOVA results. This technique is known as orthogonal comparisons and allows one to compare each of the individual pairs of means to determine if the difference between the
two means is significant. This technique involves calculating a sum of squares for each comparison and using the calculated sum of squares with the residual sum of squares from the ANOVA results to conduct an F test for significance. The general formula for the orthogonal comparison of three means is as follows:

\[ S.S._A = \frac{n[(\lambda_1 \bar{X}_1 + \lambda_2 \bar{X}_2) - \lambda_3 \bar{X}_3]^2}{\sum(\lambda_i^2)} \]

and

\[ S.S._B = \frac{n(\lambda_1 \bar{X}_1 - \lambda_2 \bar{X}_2)^2}{\sum(\lambda_i^2)} \]

where \( \sum\lambda_i = 0 \)

and

\[ S.S._{\text{total}} = S.S._A + S.S._B \]

Using this technique, one is able to compare any combination of means in the sequence and thus make statements concerning the specific as well as the overall relationships that exist among the three means. For instance, given that \( \bar{X}_1 > \bar{X}_2 > \bar{X}_3 \) and given the results

\[ 1 \text{The general formula for the comparison of means was taken from George W. Snedecor and William G. Cochran, Statistical Methods (Ames, Iowa: The Iowa State University Press, 1967) pp. 308-10, and was modified per information provided by Dr. Barton Farthing, Department of Experimental Statistics, Louisiana State University, Baton Rouge, Louisiana.} \]
of the orthogonal comparisons, one would be able to either accept or reject a hypothesis that satisfaction increases with each successively higher level in the organizational hierarchy. This same technique is used in the analysis of the two-way and three-way interactions produced by the ANOVA process.

Using a combination of ANOVA and orthogonal comparisons the following tables showing the relationship between each of the five satisfaction measures and the three structural variables were generated.

**Satisfaction with Work**

The analysis of variance matrix for satisfaction with work indicates that only one of the three structural variables has a significant effect on satisfaction. As indicated in table 3, organization level is highly significant in its relationship with satisfaction with work, while neither of the other two structural variables approach the desired significance level. One can also see that none of the two-way or three-way interactions achieve the desired level of significance.

Further analysis of the means representing each of the organization levels provides some interesting information. As shown in table 4, not only is there a significant overall relationship among the three levels in the organization hierarchy, but also the results of the orthogonal comparisons indicate that the satisfaction levels of top
managers is significantly higher than those of middle managers, and the satisfaction levels of middle managers is significantly higher than those of non-managers. These results allow for the rejection of the null hypothesis AI and supports the general hypothesis that satisfaction with work increases with each successively higher level in the organization.

TABLE 3
ANALYSIS OF VARIANCE MATRIX FOR SATISFACTION WITH WORK

<table>
<thead>
<tr>
<th></th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>7.83</td>
<td>.67</td>
<td>.421</td>
</tr>
<tr>
<td>Shape</td>
<td>0.50</td>
<td>.04</td>
<td>.838</td>
</tr>
<tr>
<td>Level</td>
<td>346.38</td>
<td>29.68</td>
<td>.000*</td>
</tr>
<tr>
<td><strong>2-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape</td>
<td>10.29</td>
<td>.88</td>
<td>.357</td>
</tr>
<tr>
<td>Size-Level</td>
<td>10.67</td>
<td>.92</td>
<td>.414</td>
</tr>
<tr>
<td>Shape-Level</td>
<td>21.09</td>
<td>1.81</td>
<td>.186</td>
</tr>
<tr>
<td><strong>3-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape-Level</td>
<td>19.10</td>
<td>1.64</td>
<td>.216</td>
</tr>
<tr>
<td>Residual</td>
<td>11.67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance
TABLE 4

COMPARISONS OF MEANS BY ORGANIZATIONAL LEVEL FOR SATISFACTION WITH WORK

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>43.94</td>
<td>346.38</td>
<td>29.67</td>
<td>.000*</td>
</tr>
<tr>
<td>3</td>
<td>41.18</td>
<td>33.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Top Managers (1)</strong></td>
<td>43.94</td>
<td>45.70</td>
<td>3.92</td>
<td>.07*</td>
</tr>
<tr>
<td><strong>Middle Managers (2)</strong></td>
<td>41.18</td>
<td>29.85</td>
<td>29.85</td>
<td>.000*</td>
</tr>
<tr>
<td><strong>Middle Managers (2)</strong></td>
<td>41.18</td>
<td>348.38</td>
<td>29.85</td>
<td>.000*</td>
</tr>
<tr>
<td><strong>Non-Managers (3)</strong></td>
<td>33.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

Satisfaction with Pay

The analysis of variance matrix for satisfaction with pay, shown in table 5, indicates that of the three structural variables only organization level is statistically significant in its relationship with pay. As was the case with satisfaction with work, neither organization size, organization shape nor any of the interaction effects are statistically significant.
<table>
<thead>
<tr>
<th></th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>64.35</td>
<td>1.12</td>
<td>.300</td>
</tr>
<tr>
<td>Shape</td>
<td>16.19</td>
<td>0.28</td>
<td>.600</td>
</tr>
<tr>
<td>Level</td>
<td>1044.86</td>
<td>18.20</td>
<td>.000*</td>
</tr>
<tr>
<td><strong>2-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape</td>
<td>4.58</td>
<td>0.08</td>
<td>.780</td>
</tr>
<tr>
<td>Size-Level</td>
<td>31.89</td>
<td>0.59</td>
<td>.581</td>
</tr>
<tr>
<td>Shape-Level</td>
<td>22.53</td>
<td>0.39</td>
<td>.680</td>
</tr>
<tr>
<td><strong>3-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape-Level</td>
<td>6.86</td>
<td>0.12</td>
<td>.888</td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

Once again, further analysis of the means provides additional information useful in the testing of the hypotheses. As shown in table 6, the ANOVA results indicate that the overall relationship among the three means is highly significant. In addition, the results of the orthogonal comparisons indicate that top managers are significantly more satisfied with pay than middle managers and middle managers are significantly more satisfied than non-managers. These results allow for the rejection of hypothesis BI, and support the general hypothesis that satisfaction with pay increases with each successively higher level in the organization hierarchy.
TABLE 6
COMPARISONS OF MEANS BY ORGANIZATIONAL LEVEL FOR SATISFACTION WITH PAY

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>37.67</td>
<td>1044.86</td>
<td>18.20</td>
<td>.000*</td>
</tr>
<tr>
<td>3</td>
<td>31.25</td>
<td>31.28</td>
<td>19.28</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top Managers (1)</th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Managers (2)</td>
<td>37.67</td>
<td>247.29</td>
<td>4.30</td>
<td>.05*</td>
</tr>
<tr>
<td></td>
<td>31.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle Managers (2)</th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-managers (3)</td>
<td>31.25</td>
<td>859.68</td>
<td>14.97</td>
<td>.001*</td>
</tr>
<tr>
<td></td>
<td>19.28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

Satisfaction with Promotion Opportunities

The analysis of variance matrix for satisfaction with promotion opportunities produced the most abundant return, in terms of number of variables exhibiting significant relationships, of any of the five measures of satisfaction. As one can see from table 7, organization size, organization shape, and organization level are all highly significant in their individual relationship with satisfaction with promotion opportunities, and two of the two-way interactions, size-shape and size-level, also meet the significance requirements.
TABLE 7

ANALYSIS OF VARIANCE MATRIX
FOR SATISFACTION WITH PROMOTION OPPORTUNITIES

<table>
<thead>
<tr>
<th></th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>909.98</td>
<td>13.05</td>
<td>.001*</td>
</tr>
<tr>
<td>Shape</td>
<td>221.91</td>
<td>13.18</td>
<td>.087*</td>
</tr>
<tr>
<td>Level</td>
<td>525.27</td>
<td>7.53</td>
<td>.003*</td>
</tr>
<tr>
<td><strong>2-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape</td>
<td>203.44</td>
<td>2.92</td>
<td>.100*</td>
</tr>
<tr>
<td>Size-Level</td>
<td>195.47</td>
<td>2.80</td>
<td>.080*</td>
</tr>
<tr>
<td>Shape-Level</td>
<td>12.95</td>
<td>.18</td>
<td>.832</td>
</tr>
<tr>
<td><strong>3-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape-Level</td>
<td>21.72</td>
<td>.31</td>
<td>.735</td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

Organization Size. In order to properly interpret the ANOVA results, one must examine the absolute values of the individual means. From table 8, one can see that the mean score for members of large firms is higher than those from small firms and that the difference is highly significant. This indicates that employees of large firms are more satisfied with their opportunities for promotion than their counterparts in small firms.
TABLE 8
COMPARISONS OF MEANS BY SIZE, SHAPE AND LEVEL FOR SATISFACTION WITH PROMOTION OPPORTUNITIES

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Firms</td>
<td>33.39</td>
<td>909.98</td>
<td>13.05</td>
<td>.001*</td>
</tr>
<tr>
<td>Small Firms</td>
<td>23.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tall Firms</td>
<td>25.88</td>
<td>221.91</td>
<td>3.18</td>
<td>.087*</td>
</tr>
<tr>
<td>Flat Firms</td>
<td>30.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large-Tall Firms</td>
<td>33.29</td>
<td>987.01</td>
<td>14.15</td>
<td>.001*</td>
</tr>
<tr>
<td>Small-Tall Firms</td>
<td>18.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large-Flat Firms</td>
<td>33.50</td>
<td>126.41</td>
<td>1.81</td>
<td>.200</td>
</tr>
<tr>
<td>Small-Flat Firms</td>
<td>28.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large-Tall Firms</td>
<td>33.29</td>
<td></td>
<td>.19</td>
<td>.950</td>
</tr>
<tr>
<td>Large-Flat Firms</td>
<td>33.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-Tall Firms</td>
<td>18.48</td>
<td>425.15</td>
<td>6.09</td>
<td>.020*</td>
</tr>
<tr>
<td>Small-Flat Firms</td>
<td>28.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (all</td>
<td>31.72</td>
<td>525.27</td>
<td>7.53</td>
<td>.003*</td>
</tr>
<tr>
<td>Level 2 (all</td>
<td>32.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3 (all</td>
<td>20.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 &amp; 2 (all</td>
<td>32.17</td>
<td>1046.07</td>
<td>15.00</td>
<td>.000*</td>
</tr>
<tr>
<td>Level 3 (all</td>
<td>20.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (all</td>
<td>31.72</td>
<td>4.97</td>
<td>.07</td>
<td>.830</td>
</tr>
<tr>
<td>Level 2 (all</td>
<td>32.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 &amp; 2 (large)</td>
<td>39.22</td>
<td>1223.60</td>
<td>17.55</td>
<td>.000*</td>
</tr>
<tr>
<td>Level 3 (large)</td>
<td>21.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Mean Square</td>
<td></td>
<td>Significance of F</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------</td>
<td>-------------</td>
<td>---</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Level 1 (large)</strong></td>
<td>40.78</td>
<td>29.20</td>
<td>.42</td>
<td>.550</td>
</tr>
<tr>
<td><strong>Level 2 (large)</strong></td>
<td>37.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 2 (small)</strong></td>
<td>27.59</td>
<td>162.81</td>
<td>2.34</td>
<td>.160</td>
</tr>
<tr>
<td><strong>Level 1 &amp; 3 (small)</strong></td>
<td>21.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 2 (small)</strong></td>
<td>27.59</td>
<td>184.39</td>
<td>2.64</td>
<td>.13</td>
</tr>
<tr>
<td><strong>Level 3 (small)</strong></td>
<td>19.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 1 (large)</strong></td>
<td>40.78</td>
<td>983.92</td>
<td>14.10</td>
<td>.001*</td>
</tr>
<tr>
<td><strong>Level 1 (small)</strong></td>
<td>22.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 2 (large)</strong></td>
<td>37.66</td>
<td>304.21</td>
<td>4.36</td>
<td>.050*</td>
</tr>
<tr>
<td><strong>Level 2 (small)</strong></td>
<td>27.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 3 (large)</strong></td>
<td>21.73</td>
<td>11.76</td>
<td>.17</td>
<td>.900</td>
</tr>
<tr>
<td><strong>Level 3 (small)</strong></td>
<td>19.75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

Organization Shape. Organization shape also produced a significant relationship for this measure of satisfaction. The means in table 8 for the two classifications of shape indicate that members of flat firms are more satisfied with their opportunities for promotion than are the members of tall firms.

Size-Shape Interaction. Although the interpretation of the ANOVA results for organization size and organization shape seems rather straightforward one must
consider the size-shape interaction before drawing any final conclusions. As indicated in table 8, employees of large-tall firms are significantly more satisfied with their opportunities for promotion than employees of small-tall firms but there does not seem to be a significant difference in the satisfaction levels of employees of large-flat firms and those of small-flat firms. Additionally, employees of small-tall firms are significantly more satisfied than employees of small-flat firms but there is no difference in the level of satisfaction between the members of large-tall firms and large-flat firms.

Based on these results, one can draw the following conclusions concerning the relationship of organizational size and organization shape to satisfaction with promotion opportunities. First, members of large firms are more satisfied than members of small firms but this relationship only holds true when one is dealing with firms that have a tall organization shape. Secondly, members of flat firms are more satisfied than member of tall firms but this relationship only holds true when one is dealing with small firms. These conclusions provide the basis for the rejection of null hypotheses CII, CIII and CVI but only partially support the general hypothesis that employees of large firms are more satisfied than employees of small firms and that employees of flat firms are more satisfied than employees of tall firms.
Organization Level. The third structural variable which is significant in its relationship to satisfaction with promotion opportunities is organization level. From table 8, one can see that when the employees of all firms are considered there is a highly significant overall relationship among the three levels in the organization. Further analysis indicates that this significance is due to the differences between the satisfaction levels of the management personnel and that of the non-management personnel. This conclusion is based on the fact that there is a significant difference between the combined means of employees occupying level one and two (managers) and the mean of those occupying level three; that there is no significant difference between the mean satisfaction scores of level one and level two; and that the mean for employees occupying level two is slightly, though not significantly, larger than that of employees making up level one. The information provided by these comparisons allows for the rejection of hypothesis CI. However, the fact that there is a significant two-way interaction between organization size and organization level calls for more analysis before making a complete statement concerning relationship between organization level and satisfaction with promotion opportunities.

Size-Level Interaction. The fact that there are three separate organization levels within each of the two
size categories provides the opportunity for the comparison of several sets of means. When comparing the satisfaction levels of employees of large firms, one finds much the same pattern that existed when the employees of all firms were considered. That is, that there is a significant difference between the satisfaction levels of managers (levels one and two) and that of non-managers (level three), but that there is not a significant difference between the two levels of management personnel.

When only small firms are considered, the first thing that one notices is that the mean score for middle managers is higher than that for either top managers or non-managers. However, further examination of table 8 indicates that none of the comparisons between the three levels of employees of small firms is significant. This would seem to indicate that for small firms, organization level does not have an effect upon the level of employee satisfaction.

Some of the most interesting information was produced when the large and small firms were compared by level. The results of the orthogonal comparisons indicate that top managers of large firms are significantly more satisfied than top managers of small firms, that middle managers of large firms are significantly more satisfied than middle managers of small firms, but that there is not a significance difference between the non-managers of large and small firms.
As a result of these comparisons, one can make the following statements concerning the relationship of organization level to employee satisfaction with promotion opportunities. First, managers are more satisfied with their opportunities for promotion than non-managers but this relationship only holds true for large firms. Secondly, there is no significant difference between the satisfaction levels of top managers and middle managers. Finally, managers of large firms are significantly more satisfied than managers of small firms. These statements provide the basis for rejecting the null hypothesis CIV, but fail to support the general hypothesis that satisfaction increases with each successive level in the organization hierarchy. However, the general hypothesis that the interaction effect between the structural variables may help to explain the inconsistencies that occur when each of the variables is considered separately, is supported by the results of the analysis.

**Satisfaction with Supervision**

The analysis of variance matrix for satisfaction with supervision, as shown in table 9, indicates that organization size, organization level and the two-way shape-level interaction are all statistically significant. Further examination of the individual means, shown in table 10, provides an explanation as to magnitude and direction of the relationships.
Organization Size. The mean value for the two size classifications indicates that employees of large firms are significantly more satisfied with their supervision than are employees of small firms. This data allows for the rejection of hypothesis DII and supports the general hypothesis that employees of large firms are more satisfied with supervision than employees of small firms.

TABLE 9
ANALYSIS OF VARIANCE MATRIX
FOR SATISFACTION WITH SUPERVISION

<table>
<thead>
<tr>
<th></th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>60.47</td>
<td>2.89</td>
<td>.100*</td>
</tr>
<tr>
<td>Shape</td>
<td>18.90</td>
<td>.90</td>
<td>.351</td>
</tr>
<tr>
<td>Level</td>
<td>52.31</td>
<td>2.50</td>
<td>.100*</td>
</tr>
<tr>
<td><strong>2-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape</td>
<td>1.67</td>
<td>.08</td>
<td>.779</td>
</tr>
<tr>
<td>Size-Level</td>
<td>2.54</td>
<td>.12</td>
<td>.886</td>
</tr>
<tr>
<td>Shape-Level</td>
<td>59.34</td>
<td>2.84</td>
<td>.078*</td>
</tr>
<tr>
<td><strong>3-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape-Level</td>
<td>4.96</td>
<td>.24</td>
<td>.79</td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance
Organization Level. The ANOVA results indicate that there is an overall statistically significant relationship between organization level and satisfaction with supervision. An examination of the orthogonal comparisons reveals that, when the employees of all firms are considered, there is no significant difference between the level of satisfaction of managers (levels one and two) and non-managers (level three), nor is there a significant difference in the satisfaction levels of top managers and middle managers. However, a statistically significant difference does exist between the mean value for top managers and the combined means of middle managers and non-managers. The results of these three comparison indicate that the significant relationship indicated by the ANOVA results is due to the difference in the mean satisfaction levels of top managers and those of non-managers.

TABLE 10

COMPARISONS OF MEANS BY SIZE, SHAPE, AND LEVEL FOR SATISFACTION WITH SUPERVISION

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Firms</td>
<td>46.01</td>
<td>60.47</td>
<td>2.89</td>
<td>.100*</td>
</tr>
<tr>
<td>Small Firms</td>
<td>43.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (all firms)</td>
<td>47.04</td>
<td>52.31</td>
<td>6.50</td>
<td>.100*</td>
</tr>
<tr>
<td>Level 2 (all firms)</td>
<td>44.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3 (all firms)</td>
<td>43.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Mean Square</td>
<td>F</td>
<td>Significance of F</td>
</tr>
<tr>
<td>------------------</td>
<td>------</td>
<td>-------------</td>
<td>-----</td>
<td>-------------------</td>
</tr>
<tr>
<td>Level 1 &amp; 2 (all firms)</td>
<td>45.56</td>
<td>52.22</td>
<td>2.50</td>
<td>.150</td>
</tr>
<tr>
<td>Level 3 (all firms)</td>
<td>43.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (all firms)</td>
<td>47.04</td>
<td>52.21</td>
<td>2.50</td>
<td>.150</td>
</tr>
<tr>
<td>Level 2 (all firms)</td>
<td>44.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (all firms)</td>
<td>47.04</td>
<td>97.44</td>
<td>4.67</td>
<td>.05*</td>
</tr>
<tr>
<td>Level 2 &amp; 3 (all firms)</td>
<td>43.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (tall)</td>
<td>50.33</td>
<td>215.50</td>
<td>10.33</td>
<td>.005*</td>
</tr>
<tr>
<td>Level 2 &amp; 3 (tall)</td>
<td>42.99</td>
<td></td>
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</tr>
<tr>
<td>Level 2 (tall)</td>
<td>43.64</td>
<td>5.07</td>
<td>.24</td>
<td>.650</td>
</tr>
<tr>
<td>Level 3 (tall)</td>
<td>42.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2 (flat)</td>
<td>44.53</td>
<td>2.69</td>
<td>.13</td>
<td>.700</td>
</tr>
<tr>
<td>Level 1 &amp; 3 (flat)</td>
<td>43.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 (flat)</td>
<td>43.75</td>
<td>.02</td>
<td>.001</td>
<td>.980</td>
</tr>
<tr>
<td>Level 3 (flat)</td>
<td>43.67</td>
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<td></td>
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<tr>
<td>Level 1 (tall)</td>
<td>50.33</td>
<td>129.89</td>
<td>6.22</td>
<td>.020*</td>
</tr>
<tr>
<td>Level 1 (flat)</td>
<td>43.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2 (tall)</td>
<td>43.64</td>
<td>2.37</td>
<td>.11</td>
<td>.750</td>
</tr>
<tr>
<td>Level 2 (flat)</td>
<td>44.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3 (tall)</td>
<td>42.34</td>
<td>5.30</td>
<td>.25</td>
<td>.600</td>
</tr>
<tr>
<td>Level 3 (flat)</td>
<td>43.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance
Shape-Level Interaction. The ANOVA matrix for satisfaction with supervision also indicates that there is a two-way, shape-level interaction present. An examination of the means for each level by shape indicates that for tall firms top managers are significantly more satisfied than either middle managers or non-managers, but that there is no difference between the satisfaction levels of middle managers and non-managers. For flat firms, a comparison of means indicates that there is no significant difference in the level of satisfaction between any of the three organization levels. This means that the significant overall relationship produced by the ANOVA process can be attributed entirely to the difference in the levels of satisfaction of employees of tall firms. A further partitioning of the means indicates that top managers of tall firms are significantly more satisfied than top managers of flat firms. However, there is not a significant difference in the satisfaction levels of middle managers of tall firms and middle managers of flat firms nor is there any difference between satisfaction levels of non-management personnel in the two shape categories.

The results of these comparisons provide the basis for the following conclusions concerning the effect that organization level has on satisfaction with supervision. First, one can say that top managers are significantly more satisfied with supervision than either middle managers
or non-managers but that this relationship is only true when one is dealing with tall firms. Secondly, one can say that top managers of tall firms are significantly more satisfied with supervision than top managers of flat firms. These results provide for the rejection of the null hypotheses DI and DV, but fail to support the general hypothesis that satisfaction increases with each successively higher level in the organization hierarchy. However, the data did support the general hypothesis that the interaction among structural variables helps to explain the inconsistencies that occur in the data when each of the variables is considered separately.

Satisfaction with Coworkers

The analysis of variance matrix, presented in table 11, indicates that of the three organization structural variables tested, only organization level is statistically significant in its relationship with satisfaction with coworkers. Examination of the ANOVA matrix indicates that neither organization size, organization shape nor any of the two-way or three-way interactions achieve the desired level of significance.

Further examination of the variable organization level, as shown in table 12, indicates a strong overall relationship between satisfaction with coworkers and the three levels in the organization hierarchy. The orthogonal comparison of means indicate that managers (level one and
TABLE 11
ANALYSIS OF VARIANCE MATRIX FOR SATISFACTION WITH COWORKERS

<table>
<thead>
<tr>
<th></th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>18.89</td>
<td>.76</td>
<td>.391</td>
</tr>
<tr>
<td>Shape</td>
<td>14.25</td>
<td>.58</td>
<td>.455</td>
</tr>
<tr>
<td>Level</td>
<td>88.23</td>
<td>3.57</td>
<td>.044*</td>
</tr>
<tr>
<td><strong>2-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape</td>
<td>1.67</td>
<td>.07</td>
<td>.797</td>
</tr>
<tr>
<td>Size-Level</td>
<td>3.62</td>
<td>.15</td>
<td>.864</td>
</tr>
<tr>
<td>Shape-Level</td>
<td>19.00</td>
<td>.77</td>
<td>.474</td>
</tr>
<tr>
<td><strong>3-Way Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size-Shape-Level</td>
<td>5.16</td>
<td>.20</td>
<td>.813</td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

and two) are significantly more satisfied than non-managers (level three); that there is no significant difference between levels of satisfaction of top managers and middle managers; that the level of satisfaction of top managers is significantly higher than the combined levels of middle managers and non-managers; and that there is no significant difference between the level of satisfaction of middle managers and non-managers. These seemingly contradictory statements indicate that the statistically significant results of the ANOVA technique is due to the difference in the level of satisfaction between top
### TABLE 12
COMPARISONS OF MEANS BY LEVEL FOR SATISFACTION WITH COWORKERS

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>46.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td>43.98</td>
<td>88.23</td>
<td>3.57</td>
<td>.044*</td>
</tr>
<tr>
<td>Level 3</td>
<td>41.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 &amp; 2</td>
<td>45.21</td>
<td>140.44</td>
<td>5.68</td>
<td>.030*</td>
</tr>
<tr>
<td>Level 3</td>
<td>41.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>46.44</td>
<td>36.31</td>
<td>1.46</td>
<td>.250</td>
</tr>
<tr>
<td>Level 2</td>
<td>43.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>46.44</td>
<td>124.18</td>
<td>5.02</td>
<td>.040*</td>
</tr>
<tr>
<td>Level 2 &amp; 3</td>
<td>42.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td>43.98</td>
<td>52.56</td>
<td>2.12</td>
<td>.180</td>
</tr>
<tr>
<td>Level 3</td>
<td>41.02</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*exceeds .1 level of significance

Managers and non-managers. The mean score of middle managers falls between the two but is not significantly different from either.

The conclusion that one may draw from this analysis is that top managers are significantly more satisfied with their coworkers than are non-managers. This conclusion is the basis for the rejection of the null hypothesis E1. However, the general hypothesis that satisfaction increases with each successively higher level in the organization is only partially supported by the data.
CHAPTER FIVE

SUMMARY AND CONCLUSIONS

Orientation to the Chapter

The information presented in the first four chapters of this treatise suggests several general conclusions. First, from the review of the literature, it is obvious that the many researchers regard the relationship between job satisfaction and organization structure to one worthy of study and analysis. Secondly, for employees of retail merchandising firms in the southeastern United States, the results suggest that the structure of the organization has an effect on the employee's level of satisfaction. Finally, the current study has suggested that examining several different aspects of satisfaction might be a more appropriate investigative technique than only looking at some global measure of satisfaction such as "overall job satisfaction" or "morale." This conclusion is reinforced by the fact that the current study did not produce a consistent set of results from the relationship between the five measures of satisfaction and the organization structural variables. It is entirely possible that the significant relationship between the individual measures of satisfaction and the
structural variables reported in chapter four would have been obscured had some general measure of satisfaction been used.

The remainder of this chapter will present a summary of the conclusions of the study and will review the mutuality and/or conflicts between the results of this study and the existing literature. Finally, it will present some limitations and some areas for future research.

**Summary of Conclusions Concerning the Relationship of Organization Structure to Employee Job Satisfaction**

The current study examined the relationship between three organizations structural variables (organization size, shape and level) and five separate measures of job satisfaction. The conclusions which can be drawn from the study concerning the satisfaction levels of employees of retail merchandising firms in the southeastern United States are as follows:

1) Satisfaction with work increases with each successively higher level in the organization. That is, top managers are more satisfied than middle managers, who are in turn more satisfied than non-managers.

2) Satisfaction with pay increases with each successively higher level in the organization. That is, top managers are more satisfied than middle managers, who are in turn more satisfied than non-managers.
3) Managers of large firms are more satisfied with their opportunities for promotion than are non-managers in large firms. There is no difference in the satisfaction levels of managers and non-managers of small firms in regard to satisfaction with promotion opportunities.

4) Employees of large firms that have a tall organization structure are more satisfied with their opportunities for promotion than employees of small firms that have a tall structure. There is no difference in the level of satisfaction with promotion for members of firms with flat structures regardless of firm size.

5) Employees of small firms that have a flat organization structure are more satisfied with their opportunities for promotion than employees of small firms that have a tall structure. However, there is no difference in the satisfaction levels of employees of large-tall firms and large-flat firms.

6) Employees of large firms are more satisfied with their supervision than employees of small firms.

7) Top managers of firms with a tall organization structure are more satisfied with their supervision than are middle managers and non-managers in tall firms. There is no significant difference in the degree of satisfaction with supervision among top managers, middle managers and non-managers of firms with a flat organization structure.

8) Top managers are more satisfied with their coworkers than are non-managers. The satisfaction level of middle managers falls between the two, but is not significantly different from either.

9) The interaction among organization structural variables is significant in explaining the relationship of structure to attitudes concerning job satisfaction.
Conclusions Concerning the Research Results and Their Relationship to the Existing Literature

Satisfaction with Work

As reported in chapter four, organization level was the only structural variable which exhibited a significant relationship to this measure of satisfaction. The results of the analysis of variance and of the orthogonal comparisons indicate that satisfaction with work increases with each successively higher level in the organization hierarchy. These results are consistent with much of the previous research concerning organization level and job satisfaction. As reported in chapter two, sixteen of the twenty-two studies reviewed reached a similar conclusion.

The fact that the results indicate that satisfaction increases with each successively higher level in the organization should not be a total surprise. One would suspect that since authority, power, responsibility, etc. generally increase as one goes up the organizational hierarchy, higher level jobs might be more interesting, more challenging, and hence more satisfying.

Satisfaction with Pay

The results of the analysis of variance for this measure of satisfaction indicated that of the three structural variables being tested only the relationship between organization level and satisfaction with pay was
statistically significant. The orthogonal comparisons of the means indicated that the significant difference was present between each of the three organization levels being tested, which led to the conclusion that satisfaction with pay increases with each successively higher level in the organization hierarchy. This conclusion is consistent with sixteen of the twenty-two studies presented in chapter two concerning organization level and job satisfaction. However, one must note that of the six studies which did not reach a similar conclusion, at least one used the JDI and reported no significant relationship between organization level and satisfaction with pay.

Nevertheless, the results obtained for this variable might have been predicted by an astute observer. Generally, one assumes that the higher one goes in an organization, the higher the rate of compensation. This higher rate of pay puts the top level employee in a more favorable position than the lower level employee when each compares his or her pay to that of the overall population. Moreover, one might suspect that the marginal reward for achievement is greater for high level employees than for low level employees. Therefore, when one compares the attitude toward pay of a successful top executive to that of a successful rank-and-file worker, one might predict a higher level of satisfaction for the higher ranking employee.
Satisfaction with Promotion Opportunities

The analysis of variance results for satisfaction with promotion opportunities produced a statistically significant relationship between this measure of satisfaction and each of the three structural variables as well as two two-way interactions.

Organization Size. The analysis indicated that members of large firms are significantly more satisfied with their opportunities for promotion than members of small firms. As was stated in chapter two, the relationship between organization size and job satisfaction as presented in the literature is not apparent. Only two of the nine studies reviewed reached conclusions consistent with the results of this study. This obvious conflict in the literature (and with the results obtained here) may be more fully explained by examining the size-shape two-way interaction.

Size-Shape Interaction. Examination of the means in the size-shape interaction indicates that the superiority of large firms over small firms is due entirely to those firms that are also classified as having a tall structure. That is, the difference between a large-tall firm and small-tall firm is highly significant while the difference between a large-flat firm and a small-flat firm is not statistically significant. This information causes a restatement of the previous conclusion. Instead of saying that members of large firms are more satisfied
than members of small firms, one should more properly conclude that members of large-tall firms are more satisfied than members of small-tall firms, but that there is no difference in the levels of satisfaction between members of large-flat and small-flat firms.

These results may help to explain some of the inconsistencies that have been previously reported in the literature. One can see that the conclusions reached concerning the superiority of either large or small firms in producing job satisfaction might change depending on whether the composition of the sample is primarily tall firms or primarily flat firms.

**Size-Level Interaction.** An additional piece of information which is helpful in explaining the large firm-small firm nexus is the size-level two-way interaction. Examination of the individual means indicate that top managers of large firms are more satisfied with their opportunities for promotion than top managers of small firms; that middle managers of large firms are more satisfied with their opportunities for promotion than middle managers of small firms; and that there is no significant difference between the satisfaction levels of non-managers in large firms and non-managers in small firms.

Support in the literature for these conclusions appears to be mixed. As reported earlier, Porter in his 1963 study, which used a global measure of job satisfaction,
found that top level managers in large companies were more satisfied than top level managers in small companies, but that lower and lower-middle level managers from small companies were more satisfied than those from large companies.\(^1\) In a similar study in 1968 which also measured overall satisfaction, El Salmi and Cummings reached conclusions which were directly contradictory to those reached by Porter. That is, at the top-management level employees of small firms were more satisfied than employees of large firms, while at the middle and lower-middle management levels employees of large firms were more satisfied than employees of small firms.\(^2\)

Optimistically, one can conclude that both studies partially support the conclusion of this study; but realistically one must admit that both studies also partially challenge the results of this study.

In deciding which of the three sets of conclusions is most accurate, a strong case based on logic can be made for the conclusions of the current study. First, it must be noted that the current study is based on a specific measure of satisfaction


(satisfaction with promotion opportunity) and not a global measure of satisfaction as in the two previous studies. Secondly, since the focus is on promotion opportunities, it is appropriate to note that large firms probably have more management positions at each level in the hierarchy than small firms. Thirdly, one would expect that this increased number of positions would be perceived as opportunity for promotion by the ambitious and confident manager. Therefore, it seems reasonable to assume that both top managers and middle managers of large companies would be more satisfied with their opportunities for promotion than their counterparts in small companies.

Organization Shape. The analysis of the relationship between satisfaction with promotion opportunities and organization shape indicates that employees of flat firms are significantly more satisfied with their opportunities for promotion than are employees of tall firms. At first glance, this relationship seems to be what one would logically expect. The review of the literature in chapter two indicates that most researchers have accepted as fact that a flat organization produces greater employee job satisfaction than a tall organization. However, intuitive reasoning might cause one to be concerned about this conclusion since in this case the measure in question is satisfaction with promotion opportunities. It seems logical that since tall firms have more levels in the
organization than do flat firms (holding size constant) that there would be greater opportunity for promotion in tall firms and therefore greater opportunity for satisfaction. Therefore, one might expect the direction of the relationship for this variable to be reversed. This apparent inconsistency between the statistical analysis and what one would assume from intuitive reasoning might be explained by looking again at the results of the size-shape two-way interaction.

Inspection of the means in the size-shape two-way interaction indicates that the superiority exhibited by flat firms over tall firms only holds true for those firms classified as small companies. There is a highly significant difference between the satisfaction levels of members of small-flat firms and those of small-tall firms, but this relationship does not hold true for large firms. These results are consistent with the only two examples of a size-shape interaction reported in literature thus far. The Porter and Lawler study (1965) found that in small firms, flat structure produced greater satisfaction than tall structures, but that the reverse was true for large firms.¹ The Porter and Siegel (1965) study produced similar results. They found that in small firms, flat structure produced greater

satisfaction than did tall structures, but in large firms the researchers found no significant difference between flat and tall structures in producing satisfaction.¹

Providing a logical explanation of these results is difficult indeed. For large firms, one might reason that although there is a measurable difference between tall and flat firms, the absolute difference, in terms of perceived opportunity, is not so great as to produce a statistically significant difference in satisfaction levels.

For small firms, the explanation of the results becomes more complex. The firms in each of the two size categories were classified as either tall or flat based upon the ratio of the number of employees in the organization to the number of organization levels (E/L). Therefore, the relative flatness of an organization varies with changes in either the number of employees in the organization or the number of levels in the organization. In this study, the majority of variation in the relative flatness of an organization is due to changes in the numerator of the ratio (E) and therefore, the flatter firms also were the ones with the most employees. This means that it is quite possible to have two firms with the same number of organization levels, with one being

classified as flat and the other as tall because the flatter one has more employees per level. The significance of this fact is that perhaps employees estimate their opportunities for promotion by looking not only at the direct vertical hierarchy but also by looking horizontally across the organization. In other words, it may not be just their superior's job that effects their perceptions about promotion opportunities but also all of the other jobs in the organization on the same level. If this were the case, it would be possible, even probable, that employees of small-flat firms would exhibit higher levels of satisfaction with promotion opportunities than would employees of small-tall firms.

Organization Level. The third structural variable which proved to be statistically significant in its relationship to satisfaction with promotion opportunities was organization level. The analysis of variance and the orthogonal comparisons indicate that managers are significantly more satisfied with their opportunities for promotion than are non-managers. However, the data also indicated that there is no significant difference between the satisfaction levels of top managers and middle managers. This conclusion is consistent with several of the studies reported in chapter two, specifically those studies which limited themselves to making a distinction only between managers and blue-
collar workers when measuring job satisfaction. However, many of the studies reviewed did make a distinction between the various levels of management and generally found that satisfaction increased with each successively higher level. Regrettably, for this measure of satisfaction, the results of the current analysis are not in total agreement with that portion of the literature.

Before stating the final conclusions concerning the relationship between organization level and satisfaction with promotion opportunity, it is necessary to consider the size-level two-way interaction. Upon examination of the means one finds that the significant difference between the satisfaction levels of managers and non-managers only holds true for large firms. In fact, in small firms middle managers reported higher levels of satisfaction than either of the other two hierarchical positions although the level of significance of the difference between middle managers and the other two levels (.16) falls short of the .10 significance criterion.

In trying to explain these results, one must first remember that the variable under examination is satisfaction with promotion opportunity rather than an overall measure of satisfaction. Therefore, in large firms one would expect managers to be more
satisfied with their opportunities for promotion than non-managers if only due to the fact that they find themselves already in the promotion track by being members of the management team. Additionally, one might surmise that there are more dead-end jobs in the non-management ranks than in the management ranks, leading to lower perceived opportunity among non-managers.

The results obtained for small firms is not all that surprising after one carefully considers the data. Of the three organization levels, middle managers have the highest level of satisfaction while top managers and non-managers record about the same level. The first thought that comes to mind in trying to explain the difference that exists, is that perhaps middle managers are the only ones who feel that they have anywhere to go. In small companies, top management was defined as the highest level below the owners of the firm. Therefore, by definition there is no room for promotion. As for non-managers, the same reasoning applies to them that was mentioned for non-managers of large firms, except that it is amplified by the fact that there are fewer opportunities in small firms than in large firms.

Satisfaction with Supervision

The analysis of variance results for satisfaction with supervision produced a significant relationship
between this measure of satisfaction and the structural variables organization size, organization level and the shape-level two-way interaction.

Organization Size. The results of the analysis indicate that employees of large firms are more satisfied with their supervision than employees of small firms. The literature reviewed in chapter two is mixed in its support of this conclusion. Of the nine studies reviewed, two reached similar conclusions, three reached opposite conclusions, and four concluded that no relationship existed between organization size and job satisfaction. Once again, it must be noted that these nine studies measured overall job satisfaction while the current study is measuring only a component of satisfaction. It is believed by this author that the distinction between a global measure of satisfaction and a specific measure of satisfaction is sufficient to explain inconsistencies in the literature.

In this case, it is reasonable to expect that employees of large firms might be more satisfied with supervision than members of small firms. It is possible that large firms place more emphasis on consistent personnel policies; that they employ more professional managers as opposed to owner managers; and that these managers serve in their positions as a result of their professional competence (which includes handling of personnel) rather than due to a perquisite of ownership.
Organization Level. Examination of the relationship between satisfaction with supervision and organization level indicates that top managers are more satisfied with supervision than either middle managers or non-managers but that there is no significant difference in the satisfaction levels of middle managers and non-managers. Explanation of this result is extremely difficult. It has already been mentioned several times that based on the literature one would expect the level of satisfaction to increase as one goes up the organization hierarchy. However, this does not explain the lack of distinction between the satisfaction levels of middle managers and non-managers. A possible solution is that perhaps there is very little difference in the managerial skills of top managers and middle managers (particularly in the handling of personnel) and therefore each is rated about the same by his respective group of subordinates.

While this line of reasoning may explain the lack of difference in the satisfaction levels of middle managers and non-managers, it does not explain why top managers are more satisfied with supervision than their subordinates. Perhaps the reason that top managers view their superiors in such a favorable light is due to the type of people occupying those positions and the nature of the supervisor-subordinate relationship that exists between the two. For instance, the top manager is supervised by owners, boards of directors, chief executive officers,
etc. These are the type of persons that one associates with such personal characteristics as intelligence, competence, enthusiasm, industry, etc.; characteristics that are considered to be desirable by most successful managers and perhaps ones with which they can identify. Also, one would expect that the relationship that exists between the top manager and his/her supervisor to be one of mutual respect and esteem. The top manager, in all likelihood, is given a great deal of autonomy, power, authority, responsibility, etc.; is asked for advice on important decisions; and is considered by his supervisor to be a valuable part of the management team. It seems likely that this type of relationships would produce a high level of satisfaction among top managers.

Shape-Level-Interaction. The shape-level two-way interaction provides further insight into the relationship between organization level and satisfaction with supervision. Examination of the means shows that the differences in the degree of satisfaction reported by the three levels in the hierarchy only holds true for firms with a tall organization structure. That is, top managers of tall firms are more satisfied than either middle managers or non-managers of tall firms, but there is no difference in the degree of satisfaction between any of the three levels of employees in flat firms. Once again, if differences in satisfaction levels occur, one would expect the more satisfied employees to be the
higher level ones. This relationship is consistently reported in the literature and seems to hold true for most measures of satisfaction, whether they are specific measures or a global measure of satisfaction.

The reasons why this relationship does not also hold true for flat firms is not obvious. One might surmise that in flat organizations similar management styles are required at all levels in the organization. That is, maybe some of the freedom and participation that is only seen at the top levels in tall firms exists at all levels in flat firms and thus similar levels of satisfaction is produced at each level. One must be careful when drawing this conclusion, since the ANOVA results did not indicate that either shape was superior to the other in producing satisfaction with supervision.

The second dimension of the shape-level interaction is an individual examination of each of the three levels when they are segmented by shape. The results indicate that top managers of tall firms are more satisfied with supervision than top managers of flat firms, but that there is no difference in the satisfaction levels of middle managers of tall firms and middle managers of flat firms nor between non-managers of tall firms and non-managers of flat firms. This result is to some degree consistent with the results
of the 1968 study by El Salmi and Cummings. These two researchers found that at the top levels of management, tall structures produced higher levels of satisfaction than flat structures, while at lower levels of management flat structures produced higher levels of satisfaction.

**Satisfaction with Coworkers**

The results of the analysis of variance and the orthogonal comparisons indicate that top managers are significantly more satisfied with coworkers than non-managers. The satisfaction level of middle managers falls between those reported by the other two organization levels but does not meet the .10 significance requirement in the relationship to either. However, the difference between the satisfaction levels of top managers and middle managers is significant at the .25 level and the difference between the satisfaction levels of middle managers and non-managers is significant at the .18 level. This information is given to indicate that there does seem to be a relationship between organization level and satisfaction with coworkers. It is significant to note that neither of the other two structural variables, size

---

or shape, produced a significant result in their relationship with satisfaction with coworkers. This should be interpreted to mean that regardless of the size or structural shape of an organization, it is the personal characteristics of the workers at each level in the organization hierarchy that determines the degree of an employee's satisfaction with coworkers. The data also indicates that satisfaction with coworkers increases with each successively higher level in the organization. This conclusion is reasonable since one might expect the characteristics admired in a coworker (ambitious, responsible, intelligent, loyal) to be the same as the characteristics that qualify one for a management position.

Once again, the results of this portion of the study seem to be in accord with previous research in the relationships between organization level and job satisfaction. That is, satisfaction increases with each higher level in the organization hierarchy.

Limitations That Arose As the Study Progressed

There were several limitations to the study that became evident as the research effort progressed. These limitations can be loosely grouped and classified as selection problems, collection problems, and classification problems.
In the area of selection of the sample, it soon became evident that the population of firms fitting the sample requirement of independent ownership status was not nearly as large as was first expected. The available population was further reduced due to the fact that several of the firms contacted chose not to participate in the study. This constraint was especially detrimental in trying to secure the required number of firms in the large firm classification. Under ideal conditions, one would have preferred to have a larger population from which to randomly select the participating firms, and perhaps to increase the number of participating firms in each of the four size-shape categories.

The scarcity of firms meeting the sampling requirement also caused the sample to be chosen from a broader geographical area than was originally intended. It had been hoped that an adequate sample could be chosen from a single state. While this approach would have limited the interpretation of results to a smaller area, it also would have reduced the amount of variation due to economic differences, cultural background, etc. However, to meet the sample requirement the final sample was drawn from a six state area in the southeastern United States.

The technique used for the collection of data also required modification as the study progressed.
Initially, the author intended to personally instruct the respondents prior to filling out the questionnaire and to oversee the coding and collection of the data. As the geographic area required for the sample expanded, this proved to be impractical and in eight of the twelve firms an "in house" representative was used. Although each of the representatives was personally instructed by the author, possibility of sampling bias exists.

The time span over which the data were collected may prove to be limitation to the study. The data were collected from the first store in August of 1976 and from the last store in December of 1977. This time delay was due to the difficulty encountered in trying to obtain the cooperation of firms with the proper size-shape characteristics. During the course of the study five separate firms initially agreed to participate in the study, but later withdrew and had to be replaced. It is possible, therefore, that the time delay could have caused a biased response due to the seasonal patterns in the retail industry or due to change in the overall economic conditions during the course of the study.

The third area which could prove to be a limitation to the study is the selection of the parameters used to determine the structural characteristics of each participating firm. For instance, the decision to use one thousand employees as the dividing line between small
firms and large firms was made only after the study began, and was based on what seemed to be the natural division point for independent retail stores. It is possible that some other parameter could have been just as appropriate.

Another possible limitation of the study is the technique used to classify a firm as either tall or flat. Although the ratio method (E/L) has been widely used in previous research,\(^1\) one would think intuitively that a more sophisticated approach could be developed. Examination of the sample used in this study reveals that within each of the two size categories, the larger firms are classified as flat and the smaller firms are classified as tall. Since the denominator of the fraction does not usually vary over as wide a range as the numerator, one would expect the numerator to be the controlling variable in classification by shape. Therefore, this idiosyncrasy of the ratio system may indicate a conceptual weakness in this method of classification.

**Suggested Areas for Future Research**

Based upon a review of the current literature and the limitations encountered during the course of this study, the following topics are suggested as being

\(^1\)For instance see Porter and Lawler (1964); Porter and Siegel (1965); El Salmi and Cummings (1968); Ghiselli and Johnson (1972); and Ghiselli and Siegel (1972).
appropriate for future research:

1) Due to conflicts in the literature, there seems to be a need for more studies that examine the relationship between the various organization structural variables and job satisfaction. These studies should examine not only total organization size, organization shape and organization level but also such topics as sub-unit size (groups), span of control, degree of centralization, etc.

2) In the area of the relationship between satisfaction and organization level, it is suggested that future studies examine as many different hierarchical levels as is practical across both management and non-management positions. Many studies in the past have either looked just at managers or have only made the distinction between managers and non-managers.

3) In future research concerning the relationship between satisfaction and organization structure, a need exists to conduct more research that will examine the interaction effect of various structural variables upon employee satisfaction.

4) There exists a need to construct and test a more sophisticated measure for determining the relative tallness or flatness of an organization. Ideally, the measure should be such that it would facilitate comparison of firms regardless of differences in absolute size.

5) It is suggested that future research into the relationship between satisfaction and structure be focused toward the relationships that exist in specific industries as was the case in this study. Early research tended to take an eclectic approach, while more recent studies have tended to take a more narrow approach. It is possible that additional analysis of specific industries might explain many of the inconsistencies in the literature.
6) It is suggested that future research use more than one testing instrument in determining the relationship between structural variables and satisfaction. It has been inferred that many of the results reported in previous research efforts can be tied to the instrument used as a measure. Further research in this area would do much to settle the questions that exist.
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Books


Periodicals


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**Dissertations**


APPENDIX A

Items in the JDI

Each of the five scales is presented on a separate page in the JDI test booklet. The instructions for each scale asks the subject to put "Y" beside an item if the item described the particular aspect of his job (work, pay, etc.), "N" if the item does not describe that aspect, or "?" if he cannot decide. In the examples below, each item has been marked to indicate the answers one would expect from a "satisfied" employee.

The five scales are scored according to the following criteria. Three of the scales (work, supervision and coworkers) have eighteen items which must be answered and which, if all are answered favorably, can produce a raw score of fifty-four. The other two scales (pay and promotion) have only nine items each and the raw score for these two measures must be doubled to produce a comparable raw score.

Weights for Direct Scoring of JDI Items

<table>
<thead>
<tr>
<th>Response</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes to a positive item</td>
<td>3</td>
</tr>
<tr>
<td>No to a negative item</td>
<td>3</td>
</tr>
<tr>
<td>? to any item</td>
<td>1</td>
</tr>
<tr>
<td>Yes to a negative item</td>
<td>0</td>
</tr>
<tr>
<td>No to a positive item</td>
<td>0</td>
</tr>
</tbody>
</table>
Think of your present work. What is it like most of the time? In the blank beside each word given below, write

Y for "Yes" if it describes your work
N for "No" if it does NOT describe it
? if you cannot decide

WORK ON PRESENT JOB

Y Fascinating
N Routine
Y Satisfying
N Boring
Y Good
Y Creative
Y Respected
N Hot
Y Pleasant
Y Useful
N Tiresome
Y Healthful
Y Challenging
N On your feet
N Frustrating
N Simple
N Endless
Y Gives sense of accomplishment

Think of the pay you get now. How well does each of the following words describe your present pay? In the blank beside each word, put

Y if it describes your pay
N if it does NOT describe it
? if you cannot decide

PRESENT PAY

Y Income adequate for normal expenses
Y Satisfactory profit sharing
N Barely live on income
N Bad
Y Income provides luxuries
N Insecure
N Less than I deserve
Y Highly paid
N Underpaid
Think of the opportunities for promotion that you have now. How well does each of the following words describe these? In the blank beside each word, put

Y for "Yes" if it describes your opportunities for promotion
N for "N" if it does NOT describe them
? if you cannot decide

OPPORTUNITIES FOR PROMOTION

Y Good opportunities for promotion
N Opportunity somewhat limited
Y Promotion on ability
N Dead-end job
Y Good chance for promotion
N Unfair promotion policy
N Infrequent promotions
Y Regular promotions
Y Fairly good chance for promotion

Think of the kind of supervision that you get on your job. How well does each of the following words describe this supervision? In the blank beside each word below, put

Y if it describes the supervision you get on your job
N if it does NOT describe it
? if you cannot decide

SUPERVISION ON PRESENT JOB

Y Asks my advice
N Hard to please
N Impolite
Y Praises good work
Y Tactful
Y Influential
Y Up-to-date
N Doesn't supervise enough
N Quick tempered
Y Tells me where I stand
N Annoying
N Stubborn
Y Knows job well
N Bad
Y Intelligent  
Y Leaves me on my own  
Y Around when needed  
N Lazy

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Think of the majority of the people that you work with now or the people you meet in connection with your work. How well does each of the following words describe these people? In the blank beside each word below, put

Y if it describes the people you work with  
N if it does NOT describe them  
? if you cannot decide

PEOPLE ON YOUR PRESENT JOB

Y Stimulating  
N Boring  
N Slow  
Y Ambitious  
N Stupid  
Y Responsible  
Y Fast  
Y Intelligent  
N Easy to make enemies  
N Talk too much  
Y Smart  
N Lazy  
N Unpleasant  
N No privacy  
Y Active  
N Narrow interests  
Y Loyal  
N Hard to meet
VITA

William Wayne McCartney was born June 22, 1941 in Anniston, Alabama. He was educated in the public school system and received his undergraduate degree from Auburn University in 1964. After spending two years in the United States Army, he returned to the state of Alabama and began a seven year career in the sale and marketing of electrical equipment.

In 1968 he entered the M.B.A. program at Samford University and received his degree in the spring of 1970. For the next three years he continued his career in sales and marketing.

In 1973 he was accepted as a graduate student at Louisiana State University and began work towards his Ph.D. in Management. Since that time, he has served two years as a graduate assistant at L.S.U., one year as an instructor in the department of management at L.S.U. and two years as an assistant professor at Western Kentucky University in Bowling Green, Kentucky. He is currently employed as an assistant professor of management at Florida Technological University in Orlando, Florida.

William Wayne McCartney has been married to the former Linda Kay Poe since 1963 and they have two children, William Wayne McCartney, Jr. and John Patrick McCartney.
EXAMINATION AND THESIS REPORT

Candidate: William Wayne McCartney

Major Field: Management

Title of Thesis: The Effect of Organization Structure on Job Satisfaction Among Employees of Retail Firms in the Southeastern United States

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

September 29, 1978