MANAGERIAL ACCOUNTANTS, THE EQUITY THEORY, JOB SATISFACTION, AND INTENT TO LEAVE

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A DISSERTATION

Submitted to
Wayne Huizenga Graduate
School of Business and Entrepreneurship
Nova Southeastern University

in partial fulfillment of the requirements for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

2001
A Dissertation
Entitled

MANAGERIAL ACCOUNTANTS, THE EQUITY THEORY,
JOB SATISFACTION, AND INTENT TO LEAVE

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MANAGERIAL ACCOUNTANTS, THE EQUITY THEORY, JOB SATISFACTION, AND INTENT TO LEAVE

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This research measures the relationships among variables of equity, job satisfaction, and intent to leave for managerial accountants. An accountant may be comparing the equity of his/her situation with that of another (referent) or simply measuring his/her outcome (such as pay, etc.) to his/her own input (such as effort, etc.) on the job. Two hypotheses are supported. First, the correlation between managerial accountants' job satisfaction and job equity is positive. Second, the correlation between managerial accountants' job satisfaction and intent to leave the job is not positive.

Employers of accountants are encouraged to review their personnel policies to ensure that managerial accountants are treated equitably. Not to do so may result in the unintended loss of the employees' concentration on the job and/or the loss of their physical presence due to resignation.
ACKNOWLEDGEMENTS

First, heartfelt thanks is extended to my Chairman, Dr. Judy Ramage, for her wise counsel, direction, and encouragement from beginning to end. Second, thanks is also in order to the other members of my doctoral dissertation committee, Dr. Charlie Blackwell and Dr. Howard Lawrence, who tirelessly gave of their time and advice to make this project a reality.

Third, inspiration and motivation were provided by my loving wife, JoAnn and children Marty, David, Becky and Lori.

Fourth, the assistance of Miss Lindy Kizlin and Dr. Tsung Lai was greatly appreciated in providing editing and statistical advice.

Finally, God is to be praised for being my continual source of wisdom and strength.
# TABLE OF CONTENTS

## CHAPTER I

### INTRODUCTION

- Background of Study .............................................. 1
- Definition of Major Terms ........................................... 2
  - Equity Theory Background .................................... 3
  - Equity Theory and Procedural Justice ....................... 6
  - Equity Theory and Interpersonal Justice .................... 8
  - Job Satisfaction and Intent to Leave ....................... 9
- Purpose and Justification of Study ............................ 14
- Research Questions and Hypotheses ............................. 15
- Assumptions and Limitations of Study .......................... 16
  - Assumptions .................................................. 16
  - Limitations .................................................. 17
- Summary of Future Chapters ..................................... 18

## CHAPTER II

### LITERATURE REVIEW

- Equity Theory Research 1980 to 1990 .......................... 21
- Equity Theory Research Since 1989 ............................. 23
  - Employees-Traits, Actions, and Reactions ................. 23
  - Management Style and Formation ............................ 28
  - Management Human Resource Decisions ...................... 33
  - Professional Compensation ................................ 43

## CHAPTER III

### METHODOLOGY

- Research Hypotheses and Variables ............................. 46
- Description of Approach ......................................... 48
- Population and Sample ......................................... 48
  - Population .................................................. 48
  - Sample ..................................................... 49
- Instrumentation Reliability and Validity ....................... 50
  - Minnesota Satisfaction Questionnaire (MSQ) ............... 53
  - Sorensen’s Job Equity Questionnaire ....................... 56
- Data Collection ................................................ 58
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pretest Gender of Respondents</td>
<td>62</td>
</tr>
<tr>
<td>2. Pretest Highest Degree Held</td>
<td>62</td>
</tr>
<tr>
<td>3. Pretest Accounting Designations</td>
<td>63</td>
</tr>
<tr>
<td>4. Pretest Variables, Means, and Standard Deviations</td>
<td>64</td>
</tr>
<tr>
<td>5. Gender of Respondents</td>
<td>67</td>
</tr>
<tr>
<td>6. Highest Degree Held</td>
<td>67</td>
</tr>
<tr>
<td>7. Accounting Designations</td>
<td>68</td>
</tr>
<tr>
<td>8. Variables, Means, and Standard Deviations</td>
<td>69</td>
</tr>
<tr>
<td>9. Female Gender Correlations</td>
<td>74</td>
</tr>
<tr>
<td>10. Male Gender Correlations</td>
<td>74</td>
</tr>
<tr>
<td>11. Bachelor’s Degree Correlations</td>
<td>75</td>
</tr>
<tr>
<td>12. Master’s Degree Correlations</td>
<td>75</td>
</tr>
<tr>
<td>13. No Designation Correlations</td>
<td>76</td>
</tr>
<tr>
<td>14. CPA Designation Correlations</td>
<td>76</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>1.</td>
<td>Model A</td>
</tr>
<tr>
<td>2.</td>
<td>Model B</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Background of Study

Are you a capable university administrator, but have frequent resignations by your controllers? Then the subject of this dissertation may be of help to you since you may not be treating your managerial accountants equitably.

The topic of remuneration is always of interest in the employee-employer relationship. Both the dollar amount of the pay and the judgement as to whether or not it is equitable in light of the effort expended to produce the wage or salary are of interest. Some employers try to keep the information confidential, but in many organizations the grapevine disseminates facts, rumors, and questions that the management can’t control. A related question is, how does my effort and pay compare to those of other individuals I work with or may know who work elsewhere?
Employees in the workplace include accountants such as Certified Public Accountants (CPAs), Certified Management Accountants (CMAs), Certified Internal Auditors (CIAs), and thousands of non-licensed, non-certified accounting personnel. These individuals may be working for public accounting firms, for-profit entities (such as corporations, partnerships, and sole proprietorships), and not-for-profit organizations (such as colleges/universities, hospitals, churches, governments, etc.).

While only the CPA is required to be licensed to perform and sign the independent audit letter for an entity, other accountants may obtain various designations to indicate expertise in the work they do. The majority of managerial accountants, however, work their entire career without wanting, needing, and/or being able to obtain the CMA designation.

Definition of Major Terms

The research covered in this dissertation examines the equity theory, which is first defined and put in historical perspective with its relationship to two variables: job satisfaction and intent to leave. The review of literature
regarding the equity theory is then extended to various
dimensions emanating from the definition and cites
research, which has been conducted to support or refute
variables under different conditions.

Equity Theory Background

The root of equity theory, the research interest of
this paper, is Festinger's (1957) theory of cognitive
dissonance. The equity (or inequity) theory was first
espoused by Adams (1963) in a business environment and has
since been cited and/or tested by numerous economists,
social psychologists, and organizational behavioral
researchers.

Before defining inequity, Adams (1963) points out that
two individuals must be introduced: "Person and Other" (p.
424). "Person" is any one who experiences inequity, and
"Other" is some one or group used by the "Person" as a
referent when he makes various comparisons of his inputs
and outcomes. "Inequity exists for Person whenever he
perceives job inputs and/or outcomes stand psychologically
in an obverse relation to what he perceives are the inputs
and/or outcomes of Other" (p.424).

The preceding definition led Adams (1963) to make two
postulates.
(a) The presence of inequity in Person creates tension in him. The tension is proportional to the magnitude of inequity present. (b) The tension created in Person will drive him to reduce it. The strength of the drive is proportional to the tension created; ergo, it is proportional to the magnitude of inequity present (p. 427).

Adams then performed four experiments, which supported these hypotheses. How does an individual react when he experiences inequity or unfairness? Does he just show dissatisfaction? Adams (1965) answers these questions in a sequel to the preceding article.

Equity exists when the profit an individual receives is proportional to his investment in an exchange relationship. Investments consist of attributes such as skill, effort, education, age, gender, etc., which one party offers in the exchange. Profit is what is received for the investment. If part A’s profit divided by his investment (ratio A) is not equal to part B’s profit divided by his investment (ratio B), then the participants to the exchange will feel inequity. (Romans 1961)

It is the inequality of ratio A to ratio B in the mind of at least one of the parties that creates the injustice. Both can feel dissatisfied. Adams (1965) prefers the terms
inputs to investments and outcomes to profits. He comments that both of these concepts (inputs and outcomes) are perceived and may not be actual.

The inputs for services include those similar to Homans (1961), and the outcomes of the exchange include pay, rewards intrinsic to the job, satisfying supervision, etc. The second party to the comparison of ratios A and B may be a co-worker or another referent. These include a relative, neighbor, group, industry-wide configuration, etc., based on home, school, and work contacts. (Adams 1965).

Basing his results on experiments and field studies, Adams (1965) then supports the following observations.
1. Increasing inputs will reduce felt inequity if a person’s ratio is greater than another’s ratio.
2. Increasing outcomes will reduce inequity if a person’s ratio is less than another’s ratio and vice versa.
3. Individuals may distort their inputs and outcomes cognitively.
4. A dissatisfied individual may leave the field by quitting his job, obtaining a transfer and absenteeism.
5. A Person experiencing inequity may induce another to increase or reduce his input.
6. When faced with inequity, Person may change his referent.
Equity Theory and Procedural Justice

Equity theory (or distributive justice) is really one of three theories that make up organizational justice (Greenberg, 1990A). The other two theories are procedural justice ("the perceived fairness of the policies and procedures used to make decisions" (p. 402)) and interpersonal justice ("the interpersonal treatment people receive from decision makers" (p.411)).

Pioneered by Thibaut and Walker, in 1975, as one in a series of reactions to the dispute-resolution process, the theory of procedural justice had its beginning.

These investigations compared people's reactions to simulated dispute-resolution procedures that differed with respect to two types of control: the amount of control they offered the disputant over the procedures used to settle their grievances... and the amount of control they had over directly determining the outcomes... (1990A, p. 402).

The researchers were primarily interested in reviewing largely autocratic procedures in that the parties have no control over the preparation of evidence pertaining to their case. The methods also include legal procedures that
characteristically offer an abundance of input into the process such as in an American or British court system.

"Research using simulated legal decisions consistently has found that verdicts resulting from procedures offering disputants process control were perceived as fairer and were better accepted than identical results from procedures that denied process control" (1990A, p. 403).

Over time, it appears that procedures that grant, or are perceived to grant, control over the process of the outcome of an event had wide applications. These procedures include such areas as citizen/police encounters, student/teacher interaction, and voter/elected official discussions. In management, it includes employee/manager performance appraisals (1990A).

Subsequent work done on the theory of procedural justice has been by Leventhal (1980). Areas of procedural variables Leventhal has hypothesized about include:

"the selection of decision-makers, setting ground rules for evaluation potential rewards, methods of gathering information, and procedures for defining the decision process. [They also include] procedures for appeals, safeguards against abuse of power, and the availability of change mechanisms . . . to evaluate
the fairness of outcome-distribution procedures" (Greenberg, 1990A, p. 403-404).

Equity Theory and Interpersonal Justice

As mentioned earlier, the final of three theories that form organizational justice is interpersonal justice (Greenberg, 1990A). This theory is composed of two parts: "interpersonal treatment" and "adequate explanations of decisions" (p. 411).

Part one means that people consider the manner of their treatment by others as a criteria of fairness. Leading the research in this area is Bies (1986). He found that among the important factors in interpersonal treatment are honesty, courtesy, timely feedback, and respect for rights. These aspects were considered important to the quality of the students’ treatment regardless of whether or not the results of their interviews for employment were favorable.

According to Greenberg (1990A) "it appears that the quality of the interpersonal treatment received is a major determinant of people’s assessment of fair treatment (p. 411).

Part two, referred to earlier, is based on work by Tyler and Bies (1989). They found "evidence supporting the
existence of five criteria related to perceived fairness of
treatment in organizations: (a) adequately considering
others' viewpoints, (b) suppressing personal biases, (c)
consistently applying decision-making criteria, (d)
providing timely feedback about decisions, and (e)
adequately explaining the basis for decisions" (Greenberg,

The definition of organizational justice
notwithstanding, the focus of this dissertation will be
limited primarily to the equity theory or distributive
justice.

Job Satisfaction and Intent to Leave

According to equity theory (Adams, 1963), if an
employee experiences equity between input and outcome on
the job, then he or she should have greater job
satisfaction than if they are not equal. Job satisfaction
is defined by some as "the extent to which an employee
expresses a positive affective orientation toward a job"
Further, in the work of Cook, Hepworth, Wall, and Warr,
(1981), job satisfaction was treated both as a single item
variable, referring to overall satisfaction and as an index
of multiple items, referring to various job-related factors, such as pay, supervision, or workload.

Recent research supports the notion that job satisfaction, primarily, and leisure satisfaction, additionally, are beneficial to the employer both directly and indirectly by being significant positive predictors of the employees' psychological health (Pearson, 1998). A healthier employee will miss work less often and when at work will be more productive. The results of this research, based on 189 adult men, were found to be more significant for white-collar professional employees than blue-collar workers. The major contribution of this study is that when employees experience either greater job or leisure satisfaction, they will be healthier.

"Equity sensitivity" is defined as "how sensitive people are to overreward and underreward situations" and has improved the accuracy of the equity theory in predicting job satisfaction (O’Neill and Mone, 1998, p. 805). The authors continue that "self-efficacy, or task-specific self confidence is a central of Bandura’s social cognitive theory, and its influence on individual goals, efforts, and task persistence is well documented" (p. 805). Their research supports the moderating place of equity sensitivity in interaction between self-efficacy and job
satisfaction, and between self-efficacy and intent to leave the employer.

In addition to job satisfaction being related to equity, Russell and Farrar (1978) supported the hypothesis that job satisfaction could be predicted from job-related beliefs. They also found that beliefs about democratic management were more strongly related to their satisfaction than beliefs about autocratic managers. The research was conducted on female employees of a major university.

Employees voluntarily leave their jobs, but the intent to leave the job isn’t necessarily in line with prior theoretical thinking (Lee, Mitchell, Wise, and Fireman, 1996). This is the bottom line of four authors’ research in a 1996 article. They used data from interviews, as well as surveys, with nurses who had recently left their positions. The purpose of the article is to report support generally for a model by Lee and Mitchell (1994) that showed that employees use different and personal psychological processes when leaving an entity. The authors admit that these are not all captured in prior models, nor even in the one referred to here.

The cost of employee turnover is considerable when one takes into consideration separation pay, the expense of recruitment, selections, training, etc. (Cascio, 1987).
But there is positive benefit as well. In general, the poorer performers will typically choose to quit more often than better performers that means that the entity can replace the poorer employees who resign with average or better performers (Hollenbeck and Williams, 1986). These results are supported by research of McEvoy and Cascio (1987) in a meta-analysis across 24 studies involving 7,717 employees.

"The organizational consequences associated with employee turnover should be even more beneficial for companies that link rewards to individual performances because they should retain an even larger percentage of good performers and an even smaller percentage of poor performers" (Williams and Livingstone, 1994, p. 294). This study also found that the negative relationship between performance and intent to leave is unaffected by unemployment rates and the length of time between measurements of the two variables.

According to research by Lee and Mowday (1987), the lack of job satisfaction is one of the variables that is strongly related to employees leaving a company. Others include lack of organizational commitment and job involvement. Variables that seldom result in intent to
leave the job include alternative job opportunities, efforts to change a bad situation, and non-work influences.

In some mid-1980s work, two hypotheses were supported related to intent to leave (Caldwell and O’ Reilly, III, 1985). It was found that employees who reported they were given accurate information about their new jobs were less likely to leave the organizations than were those who reported receiving inaccurate information. Further, employees who found the information they used to make their job choices useful were more likely to stay with their company than those who found the information they consulted less useful.

Three authors, in a study done on Canadian Chartered Accountants (similar to CPAs in the US) caution researchers to be aware of “social-desirability response bias” in intent to leave theory and practice (Arnold, Feldman, and Purhoo, 1985, p.956). This concept is a tendency for employees to overreport employer-expected responses such as job satisfaction and organizational commitment, and to underreport undesirable variables such as intention to leave the company. The data supported the results that individuals high on “social-desirability” whose "(1) self-reported levels of job satisfaction and organizational commitment were low, or (2) whose self-reports of
intentions to search for new positions were high, had higher rates of observed turnover than individuals low on this response bias” (p. 964).

In addition to other variables affecting intent to leave, three others that are negatively correlated along with job satisfaction include intent to stay, opportunity, and general training (Price and Mueller, 1981). This was the result of longitudinal data compiled in a study of 1,091 registered nurses in seven hospitals.

Purpose and Justification of Study

The purpose of this study was to test the equity theory on managerial accountants, whether CMAs or not, who must face equity theory situations as part of the normal job stresses of pleasing a manager, client, subordinates, handling family responsibilities, time pressures, etc. The sub-set of managerial accountants we focused on was those who work in colleges and universities—not as professors—but primarily as controllers, chief accountants, and/or vice-presidents of business affairs. Our sample of accountants was taken from a coalition of relatively small, private institutions. A review of the literature didn’t find that a study of managerial accountants of related schools has ever been conducted testing the equity theory, job
satisfaction, and intent to leave. Because of the cost of distress and dissatisfaction, both directly due to missed work and indirectly to inefficient effort while working, the results may have financial significance to member institutions—if not to similar non-member colleges and universities.

Research Questions and Hypotheses

The following two research questions were addressed in this paper.

1. Is there a positive correlation between managerial accountants' job satisfaction and job equity?
2. Is there a positive correlation between managerial accountants' job satisfaction and intent to leave the job?

The null and alternative hypotheses to be tested are as follows:

H1o: The correlation between managerial accountants' job satisfaction and job equity is not positive.

H1a: The correlation between managerial accountants' job satisfaction and job equity is positive.

H2o: The correlation between managerial accountants' job satisfaction and intent to leave the job is positive.
H2a: The correlation between managerial accountants' job satisfaction and intent to leave the job is not positive.

Assumptions and Limitations of Study

Assumptions

1. Managerial accountants were asked to answer survey questions while on the job about their job. It is assumed their responses were free from bias. Some respondents could have felt that their supervisor, usually the Vice-President of Business Affairs, saw the survey and might ask to review it. If they didn't answer the questions in the way the administrator expected, they may think, their jobs could be in danger.

2. The measures of job equity, job satisfaction, and intent to leave were self-assessments. It is assumed that the answers were a reflection of the respondents true perceptions. The results of this study depended on answers being as truthful and forthright as possible. Furthermore, making correct psychological self-assessments were critical or the results to be interpreted correctly.
Limitations

1. The survey results were taken from a coalition of relatively small, private colleges. The results may not be expanded necessarily to larger private colleges/universities, other non-for-profit organizations or for-profit corporations.

2. The study was being taken of managerial accountants in the United States. The results may not be representative of those found internationally.

3. This dissertation focused primarily on college controllers and the results may not be representative of other college positions.

While this study had limitations, as noted above, there may be applicability to a broader audience. The respondents were all accountants and have the same basic accounting training as those who work for public schools, other not-for-profit institutions, and for-profit organizations. As professionals, they face similar job demands as those who work in other types of entities.

One of the similar job demands includes deadlines—many under pressure. The managerial accountant must meet
the reporting needs of his or her supervisor, the President of the school, and the Board of Trustees. The controller must also be sensitive to the requests of donors and interact favorably with peers and subordinates. Finally, the respondent may have a family and friends that demand, and should have, attention.

Summary of Future Chapters

This Chapter has given a background of the study, definition of major terms, purpose and justification of the study, research questions and hypotheses, and assumptions and limitation of the study.

The balance of the research is outlined as follows.

Chapter II: The Literature Review, which examines studies of the primary theory—the equity theory.

Chapter III: The Methodology, which describes and explains the framework of this study, collection of survey data and the statistical techniques that was used to analyze the data.

Chapter IV: Analysis of Data, which summaries the survey data collected with its analysis using appropriate statistical methodologies for this study.
Chapter V: **Summary, Discussion & Conclusions**, which draws together all aspects of this research in a concise manner.
CHAPTER II

LITERATURE REVIEW

The equity theory has been the subject of extensive research. Adams and Freedman (1976) reviewed over 160 investigations of the theory focused on the employee-employer exchange relationship. In a discussion of the equity theory research in the 1960s and early 1970s, Mowday (1987) outlines the results from different equity conditions, tasks, and dependent variables.

He reports than even though there was general acceptance of the theory, there were several limitations in its original formulation. These limitations of the equity theory include the following. 1) The concept of equity is unclear. 2) The methods an employee can use to resolve inequity makes the results ambiguous. 3) Greater understanding is needed as to how an individual selects a referent.

Research, which has been performed since that reviewed by Mowday (1987), includes, among others, the following.
Equity Theory Research 1980 to 1990

Greenberg and Ornstein (1983) found that more than one type of outcome could substitute for another in arriving at payment equity. They also determined that the same potential reward, such as a high status job title, could be perceived differently based on the reason for it being given. Markovsky (1985) supported the hypotheses that one could predict different degrees of inequity, individual injustice varied from collective injustices, and that increasing the number of injustice events was predicted to decrease the impact of each.

Brockner, Greonberg, Brockner, Bortz, Davy, and Carter (1986) found support for the equity theory in conditions of layoffs. 1) Surviving workers experienced inequity. 2) They had feelings of guilt and remorse as predicted. 3) They responded both behaviorally and psychologically. Oldham, Kulik, Stepina, and Ambrose (1986) looked at the use of referents as an aspect of the theory. They determined that employees with a long organizational tenure used another co-worker as a referent for compensation while a short-term individual used a co-worker in a prior position with another employer.
Huseman, Hatfield, and Miles (1987) added to the body of knowledge by making propositions regarding the construct of "equity sensitivity" (p. 222). This variable describes, as noted earlier, how reactions to inequity are a function of an individual’s preferences for different outcome/input ratios. While most early studies of the equity theory have been conducted in laboratories (Mowday, 1987), Martin and Peterson (1987) made a field study and determined that theory applies in the two-tier wage structure of a unionized company as well.

Dubinsky and Levy (1989) studied organizational fairness (perceived equity) as it relates to retail sales people. They found that while perceived equity is related to these employees in job satisfaction and organizational commitment, it was not in other areas.

Among the many contributions of Greenberg (1988) to the field of organizational justice is a field study supporting the theory’s position that conditions of underpayment or overpayment can be corrected by adjusting non-monetary outcomes. In later research Greenberg (1989) supported the hypothesis of the equity theory that cognitive distortions of outcomes may effectively redress perceived inequities in a pay cut to salaried workers. The experiment of Griffeth, Vecchio, and Logan (1989) tied
together the equity theory with the reinforcement affect theory suggesting that interpersonal likes or dislikes may play an important role in determining employee equity restoration responses.

Does a gender wage gap still exist? Major (1989), writing from a social psychologists' viewpoint, says that not only one exists, but that it is self-perpetuating.

**Equity Theory Research Since 1989**

The equity theory prior to 1990 has been overviewed. The following selected research on the certain aspects of the equity theory was reported since 1989.

**Employees—Traits, Actions, and Reactions**

In keeping with the equity theory, from an economic perspective, Akerlof and Yellen (1990) hypothesize that the problem of unemployment, is the result of workers proportionately withdrawing effort as their actual wages fall short of their fair wages. Another problem of underpayment is addressed by Greenberg (1990B)—that of employee theft.

In more recent research, Barr and Conlon (1994) examined the effect of the equity theory in relationship to work groups and communication. Miller (1995) researched
CEO pay. He found that changes in compensation of these highly visible officers are more closely tied to a referent in the industry rather than to one within the company itself.

Gartrell and Paille (1997) studied the effect of substantial wage cuts and a wage freeze for a worker-owned cooperative. They supported the hypothesis that responsibility for output cuts moderates the unfairness involved. Morrison and Robinson (1997) added to the equity literature by presenting a model founded on the supposition that employment is really a psychological contract. They stated that this unwritten agreement is sometimes broken resulting in anger and betrayal when the employee perceives that the organization has failed to fulfill one or more obligations.

Tsui, Pearce, Porter, and Tripoli (1997) support the hypothesis that employees' responses differ under alternative types of organization-employee relationships. Although results may vary, the highest level of employee performance and attitude are achieved when both parties are open-ended. Other findings favor involvement on employee teams and commitment to a long-term relationship by the employer. Shah (1998) studied the use of alternative
referents. The same individual type isn’t always used for both job and social comparisons.

In a recent article, Crandall, Frey, and Parnell (1999) researched the perception of violence in the workplace. They found 1) that downsizing appears to create a greater degree of risk of violence than organizations which maintain the status quo or expand, 2) females are more concerned than males about the violence, and 3) the key to reducing violence is to plan proactively and use teams.

According to the equity theory, when inequity exists in a worker’s job situation because he is underpaid, one way of reducing inputs is by taking excessive absences (Adams, 1965). In the first known study to measure employer’s opinions about absenteeism and compare them with subordinate’s, Johns (1994) outlined nine hypotheses and found the following. Employees underestimate the number of their absences, and their own compared to industry norms and their own work group. Employers estimated lower industry norms as well as lower work-group absences than did their employees. The managers also viewed the employees of their work group as having missed fewer workdays than the company mean. That is, both the managers
and employees were "self-serving" in regard to absences (p. 229).

As stated earlier, distributive justice is both studied alone as well as with procedural justice, which combine to form organizational justice (Greenberg 1990A). The next few reviews look at this phenomenon.

Researcher Moorman (1991) studied the combination of distributive and procedural justices and their influence on employee citizenship. He found that supervisors could directly affect the behavior of subordinates. But to do so, the supervisor must correctly apply the procedures, which promote fairness and exhibit an appropriate behavior himself when utilizing the procedures. The supervisor must also, in all cases, demonstrate that he is interested in the wellbeing of the employee and assure them that it is in the subordinate's interest to be fair.

Organizational justice is also the focal point for work by Schminke, Ambrose, and Noel (1997) as well. They study the parallel interests of both organizational justice and ethics—specifically, the influence of peoples' ethical orientation on perceptions of organizational justice. They report that "ethical formalists were more sensitive to procedural justice issues and ethical utilitarians were more sensitive to distributive justice issues" (p. 1190).
Formalists are guided by a set of rules in determining their behavior while utilitarians are directed by the activity, which brings about the greatest good to society. The employees’ view of ethics can help determine day to day managerial operational decisions.

Employee-employer conflict often arises in the workplace, but potential conflict must also be dealt with in co-authoring partnerships of a scholarly article. The latter is the equity aspect dealt with by Floyd, Schroeder, and Finn (1994). The researchers develop a model in which the resolution over whose name goes first is decided based on the relationship of the two or more authors. The collaboration may be based on at least one of four different intersections of motive and power drives. These four are “collegial, meritorious, mentoring, and directing” (p. 724). This explains why conflict can occur, according to the authors, and why care must be taken in evaluating the interpretation of the ordering of authors’ names in an article.

Skarlicki and Folger (1997) look at the interaction within the organizational justice theory when conflict breaks out in the form of retaliation against an employer by a disgruntled employee. They found that a relationship between distributive justice and retaliation when low
interactional and procedural justice existed. The two-way interplay between distributive and procedural justice was evident only at a minimal level of the third injustice, and the two-way interplay of distributive and interactional justice was evident only at a low level of procedural justice. In follow-up research, Skarlicki, Folger, & Tesluk (1999) studied the impact of personality as a moderator in the relationship between perceived fairness and retaliation. This is the first of such an emphasis. They found that unfair treatment might not affect everyone the same way.

Much research has been done on employee’s actions and reactions to employment situations. The study by Wanous, Polard, Premack, and Davis (1992) on “met expectations” on new hires attitudes and behaviors is an example. It is a review and statistical analysis of the work reported in 31 studies of over 17,000 people. The results “found mean (corrected) correlations of .39 for job satisfaction and organizational commitment, .29 for intent to leave, .19 for job survival, and .11 for job performance” (p. 288).

Management Style and Formation

The organizational structure of a company determines many factors, which influence employer-employee
relationships. One of the most critical is that of trust. In recent research of the equity theory by Brockner, Siegel, Daly, Tyler, and Martin (1997) it was determined in three field studies that employees' trust in the corporate administration is a powerful force in offsetting a potentially negative reaction that an employee may experience regarding decisions resulting in unfavorable action. Niehoff and Moorman (1993) furthered the study of the equity theory and trust by looking at three types of employer monitoring and their effect on workplace justice and employee citizenship. The monitoring methods were observation, informal discussions, and formal meetings. It was determined that the first method of monitoring influenced citizenship negatively but had a positive effect on perceptions of fairness. Many workplace disturbances, including physical violence and even murder, are blamed on employees of the organization. But as O'Leary-Kelly, Griffin, and Glew (1996) theorize, some of these aggressive actions are the result of the environment within the entity—labeled "organization-motivated aggression (OMA)" (p. 225). The authors discuss how the environment contributes to aggression from two perspectives. One, it acts as a stimulus and second, it promotes certain consequences from various behaviors. These behaviors
include copycat actions; negative physical, verbal, or psychological treatment; positive reinforcement or rewards to aggressiveness; lack of a conducive physical work environment. Research propositions are then outlined for empirical verification.

Since Adams (1963) outlined the equity theory, employee payment for services rendered has accounted for much research interest. Rice, Phillips, and McFarlin (1990) found that employees with a higher standard as a referent, are generally less satisfied with their pay than those who have a lower paid referent. If referents can be changed, management might attempt by education to publicize that salaries in other organizations are the same or lower than their own. Such actions might lead to low recognition of peoples' efforts and negative effects of feeling unappreciated.

Communication also plays an important role in research by Bazerman, Lowenstein, and White (1992). Their work focuses on interpersonal comparisons on decision making in an organizational context. They first accepted that the equity theory is the primary player in multiparty allocation of resources and that how information is presented is, in part, the key to its importance in relative inequity. The two studies they performed
regarding the trade-off between maximizing ones’ personal return and maintaining an equity balance with another party can reverse, they found, depending on whether the results are evaluated sequentially or simultaneously. Therefore, individuals should be counseled to evaluate decisions that can have multiple outcomes simultaneously for the wellbeing of both themselves and the organization.

Equity plays a role in the administration of punishment as reported by Ball, Trevino, and Sims (1994). Here a justice theory based study did creative work by surveying both employees and their managers about specific punishment event. They found those individual traits such as “belief in a just world” and “negative affectivity” filtered the subordinates’ perceptions of events (p. 316). Perceived harshness, an equity characteristic, was associated with the managers perceptions of the subordinates subsequent performance. The latter’s control, a procedural characteristic, was associated with the formers perceptions of subsequent citizenship behavior. Butterfield, Trevino, and Ball (1996) also viewed punishment from just the manager’s perspective. They adopted a qualitative interview technique to develop an inductive model. Results suggest that managers are impacted with pressure from varied sources. These focal
points include the organizations for which they work, work groups, punished subordinates and themselves. Managers also sense that punishment is a volatile cognitive and emotional event with ramifications well beyond the one punished and more extensive than simply changing their attitudes and behaviors.

Equity in two and multiparty negotiations is the topic of research done by various authors in the 1990s. In the first study reported here, an experiment using undergraduate business students, Conlon and Fasolo (1990) evaluated the effect of a third party’s intervention on a dispute from both a distributive and procedural justice viewpoint and satisfaction with that party. They found that the speed of the third-party intervention influenced perceptions of procedures more than of the outcomes. The speed referred to also influenced disputants differently depending on their role in the conflict. Outcome influenced all measures of organizational justice. The second study, by Gerhart and Rynes (1991), recognizes that there is little empirical evidence that women negotiate over salaries less frequently than men. This fact was supported by their research as well. They evaluated the outcome of 205 graduating MBA students’ negotiating behavior and starting salaries. They did find, however,
that the males' starting salaries after negotiation was 4.3% higher compared to 2.7% higher for females.

Management Human Resource Decisions

The equity theory is evident in research (Kravitz and Platania, 1993) concerning the attitudes and beliefs about affirmative action for minorities, women, and/or people with disabilities. The research was undertaken to determine: 1. attitudes toward suggested components of affirmative action plans (Plans), 2. the correlation between the respondent's attitude toward affirmative action and the suggested components, 3. differences in responses as a function of the Plan target, and 4. gender and ethnic differences in the preceding three items. The authors found that many beliefs about affirmative action were false. "Recruitment, training, and attention to applicant qualifications were favored, whereas discrimination, quotas, and preferential treatment were opposed" (p. 928). Results varied depending on the respondents gender and ethnicity. Conflict in this area can be reduced by education about Plans and incorporating positively perceived components in the Plans.

In a related article, distributive and procedural justice are also evident in a study of the reactions of
non-beneficiaries (males) to affirmative action in that the female was preferred in the selection process. Measurement was made of how the male responded to the work task, characterizations of the female, and the work setting when the following variables were introduced: "basis of selection (merit or preference), the comparative ability of the male versus the female, and the presence or absence of one type of explanatory justification for the selection decision . . . ." (Heilman, McCullough, and Gilbert, 1996, p. 346). The results showed that preferential treatment to the benefit of the female could produce negative reactions in the male. But the results were not always predictable and varied by type of non-beneficiary.

Are parental leave policies to bear or care for newborns fair? In a survey, Grover (1991) found the answer to be affirmative for respondents of childbearing age, having children, and with those who had positive attitudes toward women. They also replicated the affirmative answers for women planning to bear children and/or expressing intent to take such a leave. Policy-fairness attitudes were related to the respondent's view toward parents intending to take leave, and the results supported a mediation mode in which fairness perception "mediated the
relation between similarity to, and attitudes toward, leave takers" (p. 247).

Distributive justice is also very much intertwined in a model of factors affecting how disabled individuals are treated in an entity (Stone and Coïella, 1996) designed by the authors from prior research. What affects the way disabled persons are treated? It’s a combination of 1. characteristics of the disabled person and those of an observer; 2. environmental factors; 3. organizational variables, such as norms, values, policies, the characteristics of the job, and compensation systems; 4. mediating categorization, stereotyping and expectancies of an observer; and 5. modification of the observer’s expectancies and organizational variables by the disabled individual’s responses to all the above.

The next two research results on the hiring systems of employees are related. Both are by Gilliland (1993, 1994). In the first, (Gilliland, 1993) a model of applicant’s reactions to the hiring process is presented based on prior research and directing future research. Organizational justice, including distributive and procedural justices, is discussed as a basis for the model and hypotheses. The procedural justice of the hiring process is outlined in terms of ten procedural rules. It is the compliance with
or violation of these rules that provides the basis of fairness reactions. Distributive justice is also examined in the same context with respect to equity, equality, and needs. Finally, the model outlines the interaction of the two aspects of organizational justice and relationship of fairness reactions to both the entity and the individual outcomes.

In the second article, referred to above (Gilliland, 1994), the author examines the effects of organizational justice on reactions to a personnel selection system. The four independent variables that are used are as follows: 1. job relatedness, 2. explanation offered for the selection process, 3. selection decision, and 4. a priori hiring expectations. One and two are procedural justice issues, and three and four are distributive. The "dependent measures included fairness reactions, recommendation intentions, self-efficacy, and actual work performance." Job relatedness affected performance and interacted with selection decision. Explanations affected recommendations of rejected individuals. "Interactions between hiring expectations and selection decisions were observed on perceived fairness and recommendation intentions" (p. 691).

What effect does integrated manufacturing, composed of advanced manufacturing technology (AMT), just-in-time
inventory control (JIT) and total quality management (TQ) have on human resource management from a human capital perspective? Snell and Dean (1992) addressed this question. The results of their hypotheses testing was as follows. "AMT was positively related to selective staffing, comprehensive training, developmental appraisal, and externally equitable rewards for operations employees and to selective staffing for quality employees." TQ was likewise related in quality and also showed a positive correlation to comprehensiveness of training for operations employees. JIT was negatively correlated to selective staffing in operations and performance appraisal in quality, but positively correlated to staffing in quality.

The recent research of Davis, Schoorman, and Donaldson (1997) created a model of top managements' direction based on two opposing views of man. The economic view, such as the agency theory, depicts subordinated as "individualistic, opportunistic and self-serving." A socio-psychological view, such as stewardship theory, depicts employees as "collectivists, pro-organizational, and trustworthy." The authors build these views in one model based on the subordinate's psychological characteristics and organization's situational factors. They extend previous stewardship theory by defining several
of the socio-psychological characteristics that are antecedents to principal-steward relationships. They also add to the theory by building a model based on manager-principal choice rather than a deterministic view like other researchers who assumed that managers are predisposed to act one way or another.

All organizations need a means of evaluating their employees for pay and/or possible promotion purposes. From fairly recent literature (Schrader and Steiner, 1996), results show that there needs to be an improvement in this function. The authors examined various comparative bases for performance evaluation and resulting agreement or disagreement of the supervisor raters and self-raters. Traditionally, poor correlation exists between the manager’s and the reviewed employee’s results. Their finding support the hypotheses that the more explicit and objective comparison standards produced higher levels of agreement between the supervisor and the one supervised.

Is there a positive relationship between A) pay equity between lower-level employees and top management, and B) product quality? According to Cowherd and Levine (1992) there is, based on the first research designing and testing this distributive justice theory aspect. Pay equity, referred to in A above, not only led to perceptions of
fairness by lower-level employee, but also increased product quality. The reason for this is that the lower-level employee had a commitment to top-management goals, effort and cooperation.

The preceding research dealt with product quality and the equity theory. This joint project (Cooper, Dyck, and Frohlich, 1992) deals with increasing productivity ("gainsharing") and the role of fairness and participation. "Gainsharing plans . . . are premised on the assumption that performance will improve if workers are rewarded for increases in productivity" (p. 471). The research highlights problems in these plans that may result in freeloding and the opposite of what is intended. It outlines both theory and empirical evidence of a more equitable rule of distribution and worker participation in the design of such a rule. The data reported indicates that fair rules of distribution which involve worker participation can negate the social dilemma inherent in gainsharing programs.

The equity theory also applies to volunteerism (Murnighan, Kim, and Metzger, 1993). The outcomes of volunteering in a corporate setting include such non-altruistic rewards as obtaining employment, the opportunity for social interaction, and getting ahead either formally
or informally in the company. The independent variables in four different experiments to answer when and why people volunteer included "varied group size, the number of volunteers required, the payoffs to volunteers and non-volunteers, and the need to work more or for smaller outcomes than others" (p. 515). In general, undergraduates, MBAs, and top management volunteered most often when self-interests were high. Top managers also were concerned with self-interest when it came to volunteerism on the job.

Top management was also the focus of research by Gresov and Stephens (1993) on why interunit influence ("the ability of a person or group to change the behavior of another", (p. 252)) exists in a corporate setting. The author designed and tested a model on 295 management units in 46 divisions of a large organization. The model correctly predicted that resource limitations and lack of commitment to the status quo resulted in influence attempts within a group of related entities and that these influence attempts, along with interunit factors of "communication, formalization, and coordination uncertainty" predicted the extent of a specific unit's influence activity (p. 252).

The equity theory was advanced in a study (Hambrick and Cannella, 1993) of departures of executives in an
acquired company. Prior research supported the hypothesis that their departure could be explained primarily through strategy and economics. This research, however, found that the relative standing in the new, combined company of its executives provided a better explanation. Some of the results are as follows. If the acquired manager is made to feel inferior, the acquirers see them as inferior to themselves, autonomy is removed, status is removed and/or the takeover is unfriendly, then the departures are high. The worse the return on equity (ROE) of an acquired company, the greater the rate of executive resignations. The greater the gap between the ROE of the acquirer over the acquired, the greater the likelihood the acquired executive will depart. Results sometimes varied and reversed over the one month to four year time period of the study of this model.

Results of research by Leung, Chiu, and Au (1993) also differed from that of earlier work, but in this case the authors focused on the observers of industrial actions rather than participants, as was done previously. The study examined the effect of different types of grievances and industrial actions on observers' justice perceptions. They then looked at the observers' sympathy and support for the grievants. The findings supported that grievances
based on interactional justice resulted in a stronger perception of unfairness with more sympathy and support than is faced on procedural injustice. Also, the stronger perceptions of unfairness with more sympathy and support were evident for procedural injustice than for distributive justice (equity theory). The observers exhibited more support for sit-ins than for strikes.

The equity theory was also the basis of research done in an attempt to reduce individual burnout among direct-care professionals working with mentally disabled individuals (Van Dierendonck, Schaufeli, and Buunk, 1998). The goal was to reduce perception of inequity in the view of the organization and with the disabled by providing a high correlation between: A) the workers' objectives and expectations with, B) the actual work situation. Using a control group and experimental group, burnout, absence, and deprived feelings diminished comparing the latter group with the control group. The primary difference between the groups was that the experimental group drew on social resources, primarily support from their supervisor, to make this intervention program successful.
Professional Compensation

The next four selected research studies extending the equity theory deal with professional pay. The first three focus on professional baseball contracts and the fourth on pay to engineers. Article one (Harder, 1991) looked at the contradiction between the equity theory and expectancy theory (Vroom, 1964) as it relates to major league baseball free agents. The equity theory suggests that performance would be sub-par, while the expectancy theory suggests that it would be outstanding. In other words, the free agent felt under-rewarded before entering his option year, but most likely had dreams of a higher salary when acquired by the new team in the following year. So how would the player perform? The author found that his batting average, which had a weaker correlation to salary, decreased in the year before free agency. On the other hand, home run ratios, with a stronger correlation to salary, increased as hypothesized.

In the second related article, Bretz and Thomas (1992) examined perceived equity (acceptance or rejection of the arbitration results), motivation, and "final-offer" arbitration in major league baseball (p. 280). The major advantage of this type of research setting is that it allowed for a study of anticipated expected effects and
evaluation of behavioral responses in line with equity theory. The authors believe that it also ruled out the identification of the referent other. But I disagree with this later statement since the referent may not only be another ballplayer, but a top corporate executive, surgeon, movie star, etc. The results showed that pre-arbitration performance, using various measures, significantly predicted arbitration outcome. "A significant relationship was noted between losing arbitration and post arbitration performance decline. Losers were significantly more likely to change teams and leave major league baseball" (p. 280).

In article three, the authors (Howard and Miller, 1993) saw positive prospects for the use of "data envelopment" for both practitioners and researchers. Data envelopment analysis has been used to evaluate efficiency in various pricing situations. Here it is used to evaluate major league baseball results to identify the equity of pay to players. The technique's primary benefit is that it can identify individuals who are inequitably paid and allows a manager to take corrective action before negative results occur on the part of the employee. Even in cases of over-compensation inequity, the manager can cap the pay and/or seek to re-build equity between levels of management/employee remuneration to reduce dissatisfaction.
This fourth, research project on professional contractual pay, deals with engineers (Zenger, 1992). With empirical data, the authors found that in the two large firms studied, very high performers were amply compensated, but moderate performers were essentially disregarded. As a result, the data showed that employers kept the few high performers, squeezed out the few sub-level performers, but also lost their above-average workers who received contracts of only a little more than the below-average co-workers. To retain more of the quality moderate performers and avoid losing them along with the extremely low performers, management should focus on performance-based pay criteria.
CHAPTER III

METHODOLOGY

This chapter outlines the methodology, which was used to test the hypotheses proposed in Chapter I. The following terms will guide in the discussion: research hypotheses and variables, description of approach, population and sample, instrumentation reliability and validity, data collection, and data analysis and pretest.

Research Hypotheses and Variables

The null and alternative hypotheses tested in this research are as follows:

H1o: The correlation between managerial accountants' job equity and job satisfaction is not positive.

H1a: The correlation between managerial accountants' job equity and job satisfaction is positive.

H2o: The correlation between managerial accountants' job satisfaction and intent to leave the job is positive.
H2a: The correlation between managerial accountants' job satisfaction and intent to leave the job is not positive.

Figures 1 and 2 show the relationship between the variables in the hypotheses and define them as being independent or dependent.

**Figure 1**

**MODEL A**

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JOB EQUITY  \rightarrow  JOB SATISFACTION
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Independent Variable  Dependent Variable
Description of Approach

The preceding proposed relationships were tested using data collected with a survey research questionnaire. When the forms were returned from the respondents, the answers to the questions were evaluated to determine what, if any, relationship existed between the variables and the strength of the relationships.

Population and Sample

Population

The population of managerial accountants was a group of respondents who were employed by and identified with the title of controller at one of the 88 United States colleges and universities indicated in Appendix A. If no person was
so identified at the college, the subject was the primary accountant for the institution. The 88 schools listed in Appendix A were members of a coalition of private schools called the Christian College Coalition (CCC). This association, based in Washington, D.C., was, and still is, a coalition of "colleges and universities of the liberal arts and sciences [that] is North America's primary organization devoted specifically to servicing and strengthening Christian higher education" according to their literature.

Further, these controller respondents had a four-year college degree and, in some cases, a CPA license. None were a CMA (Certified Management Accountant) or CIA (Certified Internal Auditor). They may have worked in a part-time capacity.

The institutions of the CCC were chosen as the population because the schools have both managerial accountants and a spiritual dimension. Most of my life has been spent as a college professor in training individuals with interests in both as well.

Sample

The sample frame and the sample utilized was all 88 potential respondents from the CCC.
Instrumentation Reliability and Validity

Three instruments were utilized to collect the data for this research. Part I of the questionnaire asked for demographic information. Part II contained the Sorensen job equity scale. Part III contained six items from the Minnesota Satisfaction Questionnaire. Part IV asked a question about job plans in one year. Finally, Part V was a one-item Scarpello scale. See Appendix B for the complete questionnaire that was mailed to the potential respondents.

Part I—General Information: Demographics

The following questions were asked as background information about the respondent. What is your title? What is the highest degree you have earned? What is your gender? What accounting designation(s), if any, do you hold?

Part II—Questions 1-6: Sorensen’s Job Equity Scale.

Sorensen (1985) did a study on loyalty or organizational commitment which included a component of equity theory. The work included four major elements which hadn’t been previously researched when taken together. The model included: 1) a multi-disciplinary approach to the determinants of commitment, 2) a broad range of
determinants, 3) the impact of alternative job opportunities, and 4) an analysis of results by gender.

Fairness in the questions used “means the extent to which a person’s contributions to the [school] . . . are related to the rewards received. Money, recognition, and physical facilities are examples of rewards” (Sorensen, 1985, pp. 158).

Five response categories used for each item range from 5=“rewards are very fairly distributed” to 1= “rewards are not distributed at all fairly” (Price and Mueller, 1986, pp. 124). The purpose of these questions was to measure the job equity construct. They are taken from and validated by research done by Sorensen (1985). There is not an overt comparison person, or other, as Adam’s older theory would suggest and the scale might also be interpreted as something like "satisfaction with reward system."

Part III—Questions 1-6: Minnesota Satisfaction Survey

The respondents indicated their degree of satisfaction with their present job with the six-item Minnesota Satisfaction Questionnaire (See Appendix B). According to Dawis (1986), “Respondents indicate their degree of satisfaction with their present jobs using five
[3=]neither satisfied nor dissatisfied (N),
[2=]dissatisfied (D), and [1=]very dissatisfied (VD).”

Part IV—Question 13: An Intent To Leave Question

This item assessed intent to leave the employer on a
scale from 5=very often to 1=never: “I think about leaving
my current job within one year.”

Part II—Question 14: Scarpello & Campbell’s Job
Satisfaction

Scarpello and Campbell (1983) did research on the
subject of job satisfaction. By interviewing 185 employees
they determined perceived job satisfaction. Then they
compared the results with the short-form Minnesota
Satisfaction Questionnaire and two single-item global
questions of over-all satisfaction. One of the single-item
global questions required a yes-no response and the other,
a 1-5 rating response. Their results suggest that the 1-5
global rating of overall job satisfaction may be the best
indicator of the three measurement methods.

Global job satisfaction was measured with one item,
“How satisfied are you with your job in general?” (1983,
pp.584).
Response possibilities are the following: "$[5=]Very satisfied . . .[to 1=} very dissatisfied$" (1983, pp. 584). This question is validated by Scarpello and Campbell.

**Minnesota Satisfaction Questionnaire (MSQ)**

This section describes the reliability and validity estimates for the MSQ. Bolton (1986) stated that the internal consistency reliabilities for the 20 scales of the MSQ in a development sample of 1800 employees ranged from 0.81 to 0.94, with a median of 0.88. The average communality for the 20 scales was 0.54. When compared to the median reliability, this showed that a greater amount than 30% of the reliability variance is particular to each scale.

Reliability and validity evidence is reported in the MSQ manual (Weiss, Dawis, England, & Lofquist, 1967). The median internal consistency reliabilities for the scales determined separately for 25 occupational groups ranged from 0.78 to 0.93, with a median of 0.86. Retest reliability coefficients with a seven day interval for a non-homogeneous sample of employees ranged from 0.66 to 0.91 for the 20 scales, with a mid-point of 0.83. Retest consistency coefficients with a 52 week interval for a non-
homogeneous sample ranged from 0.35 to 0.71, with a median of 0.61 for the 20 variables.

Bolton (1986) continued that as part of a broader study, the Minnesota Theory of Work Adjustment, developed by Rene V. Dawis, Lloyd H. Lofquist, and David J. Weiss (Dawis, 1986) provided more substantiation of validity of the MSQ and is noteworthy.

1. Prediction of results is more accurate for contented employees than for discontented.
2. Multivariate relationships between job satisfaction and "satisfactoriness" are low, implying the necessary independence of the two constructs.
3. Job satisfaction is anticipated from the conformity of workers needs and reinforcers present in the job.
4. The length of time one spends on the job is predictable from satisfactoriness for contented workers but not for discontented ones.

Evidence for parallel validity of the MSQ can be deduced from differences among job groups on the 20 questions in every analysis. Also, while job satisfaction was reported to be the highest with professional groups, variation among employees within occupations were much
greater than average differences in job satisfaction among job groups.

The short form MSQ, from which the six questions above were taken, was used to evaluate a non-homogenous sample of 1,460 men employed in six occupations. Correlations among the 20 items ranged from 0.16 to 0.73, with a median of 0.32 and factor analysis produced two factors, "intrinsic (IS) and extrinsic (ES) satisfaction" (Bolton, 1986, p. 260).

Unit-weighted factor scores were derived for the 20 questions, including a sum of them all for "general satisfaction (GS)." Internal consistency reliabilities calculated for the six groups of jobs ranged from 0.83 to 0.91 for IS, 0.78 to 0.82 for ES, and 0.87 to 0.93 for GS, with median coefficients of 0.86, 0.80, 0.90, respectively.

The six groups differed greatly in the anticipated directions on IS, ES, and GS, supporting the parallel validity of the short form MSQ (Bolton, 1986).

In a review of measures and their use, Cook, et al. (1981) outlined the internal reliability coefficients for a number of samples using MSQ. These included IS with a range of 0.84 to 0.91 and a median of 0.86; ES with a range of 0.77 to 0.82 and a median of 0.80; and GS with a range of 0.87 to 0.92 and a median of 0.90. The correlations
between IS and ES ranged in the primary research from 0.52 to 0.68 with a median of 0.60. Test-retest reliability was 0.89 over seven days and 0.70 over 52 weeks. Mean values of the GS range from 68.9 to 83.2 by various authors sampling such diverse groups as young workers to engineers. Several other researchers used the MSQ and related results are cited.

Sorensen's Job Equity Questionnaire

Price and Mueller (1986) reported that the reliability of Sorensen's scale as measured by Cronbach's alpha was 0.95. This was a very high number based on a maximum of 1.0.

The validity of the Sorensen (1985) equity scale is supported by factor analysis. Price and Mueller (1986) reported the following.

Sorensen's factor analysis involved simultaneous examination of the six distributive justice items and indicators of personal salary, kinship responsibility, general training, commitment, job satisfaction, routinization, volition-sacrifice, and irrevocability. [They continue that the indicators include] interaction, job centralization, downward communication, upward communication, horizontal
communication, fringe benefits, promotion opportunity, and professionalism. The six items loaded highly on a single factor (p. 124).

Brooke, Russell and Price (1988) sampled 577 full-time employees of a veterans facility. They assessed distributive justice with the six-item index adopted from Price and Mueller (1981, 1986). They reported that it "measures the degree of fairness with which organizational rewards are related to performance inputs by organizational members. Sorensen (1985) reported satisfactory levels of reliability and validity for this index in a previous study" (p. 141).

Brooke, et al., (1988) reported that distributive justice was positively correlated with job satisfaction (0.39), job involvement (0.36), and organizational commitment (0.46). All three factors were significantly related to distributive justice at p < .001.

Brooke and Price (1989) did later research related to the cause of employee absenteeism in a 327 bed medical center. "Whenever possible, measures of the determinants and demographic variables were selected which had demonstrated high reliability and good convergent and discriminant validity in previous studies" (p. 6). They used Sorensen's (1985) six-item scale to assess
distributive justice. The reported Cronbach's alpha was 0.94.

Data Collection

To maximize the acceptance and return of survey forms, both an original and follow-up mailing were made of the survey and cover letter. The package also included two additional items. One, a stamped postcard with my name and address on one side and the school name of the respondent on the other. Two, a stamped business sized, number ten envelope, with my address as addressee and no return address.

The cover letter asked the managerial accountants to complete the survey form confidentially and return it to me as soon as possible. The subject was also asked to mail the post card at the same time to allow me to send follow-up mailings to non-responders. Emphasized in the letter was the fact that the information provided in the survey was confidential and made available, not by school or individual, but only in summary form.

After an appropriate period of time, packets identical to the first were mailed to schools not returning a postcard from the original mailing. An overall response of 25-35% was expected. The pretest, discussed later, from
the IMA accountants, returned 40%, but this was a local sample. Actual response from college managerial accountants, as noted in Chapter V, was 59%.

Data Analysis

Collected survey forms were checked for completeness of data and proper data entry. The Statistical Packages for the Social Sciences (SPSS) was used to make appropriate calculations of statistics including means, medians, ranges, frequencies, and standard deviations.

Pearson correlation tests were used to determine the relationship between the variables of job equity and job satisfaction; and between job satisfaction and intent to leave the job. The level of significance was five percent using a one-tail test. In addition, data on the variables of gender, highest school grade attained, and accounting designation(s) received were analyzed to determine the mix of management accountants responding. The results were used to make valuable recommendations to the management of the CCC and leaders of the various colleges.

First Hypothesis

Job equity was measured by a construct of the six variables, equally weighted, of Part II of the job survey,
and job satisfaction was measured in two ways. Job satisfaction was first measured by a construct of the six variables, equally weighted, of Part III of the survey. It was then measured by the variable of Part V of the survey. If the correlation tests showed a positive relationship existed in each case, which was expected, then the first null hypothesis was rejected in each case (and the alternative was supported). If the correlation tests showed that a negative relationship existed in each case, which wasn’t expected, then the first null hypothesis was supported (and the alternative was rejected). Each of the two job satisfaction tests stood alone.

Second Hypothesis

Intent to leave the job was measured by the variable of Part IV of the survey, and job satisfaction was measured in two ways. Job satisfaction was first measured by a construct of the six variables, equally weighted, of Part III of the survey. It was then measured by the variable of Part V of the survey. If the Pearson correlation tests showed a negative relationship existed in each case, which was expected, then the second null hypothesis was rejected (and the alternative was supported). If the correlation tests showed that a positive relationship existed in each
case, which wasn’t expected, then the first null hypothesis was supported (and the alternative was rejected). Each of the two tests stood alone even though the results were in the same direction.

Pretest

The purpose of this pretest was to analyze the results of the surveys sent to 50 randomly selected managerial accountants. These accountants are members of the 121 employed persons making up the Lynchburg chapter of the Institute of Management Accountants (IMA). The format of the mailing of the surveys and cover letter was similar to that outlined earlier for the CCC. Of the 50 surveys sent to managerial accountants, 20 (40%) were completed fully and returned. The following information was taken from the data contained in these questionnaires.

Demographic Data

The three demographic questions in the surveys concern gender, highest degrees held, and accounting designations (CPA, CMA, CIA, Other).

Gender—The sample of respondents was equally divided between males and females as seen in Table 1.
Table 1

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
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<td>50</td>
</tr>
<tr>
<td>Females</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Highest Degree Held--Most of the managerial accountants held bachelor’s degrees and eight had master’s.

Table 2

<table>
<thead>
<tr>
<th>Degree</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate’s</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Master’s</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Accounting Designation--The majority of managerial accountants responding to the survey had designations as shown in Table 3 below. Many were CPAs and four were Certified Management Accounts (CMAs).
Table 3

Pretest Accounting Designations

<table>
<thead>
<tr>
<th>Designation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPA</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>CMA</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>CIA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>None</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Variables, Means, and Standard Deviations

Following in Table 4 are the sub-variables, means of the scales, standard deviations of the data collected, and the number of responses. All the scales are from 1-5, as outlined earlier.
Table 4
Pretest Variables, Means, and Standard Deviations

<table>
<thead>
<tr>
<th>SUB-VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Respons.</td>
<td>3.55</td>
<td>.8256</td>
<td>20</td>
</tr>
<tr>
<td>2. Education</td>
<td>3.45</td>
<td>.7592</td>
<td>20</td>
</tr>
<tr>
<td>3. Experience</td>
<td>3.15</td>
<td>.9333</td>
<td>20</td>
</tr>
<tr>
<td>4. Effort</td>
<td>3.05</td>
<td>.9987</td>
<td>20</td>
</tr>
<tr>
<td>5. Work well</td>
<td>3.35</td>
<td>.9333</td>
<td>20</td>
</tr>
<tr>
<td>6. Stress</td>
<td>3.00</td>
<td>.9733</td>
<td>20</td>
</tr>
<tr>
<td>7. Pay</td>
<td>3.15</td>
<td>.9333</td>
<td>20</td>
</tr>
<tr>
<td>8. Co-worker</td>
<td>3.80</td>
<td>.9515</td>
<td>20</td>
</tr>
<tr>
<td>9. Conscience</td>
<td>4.20</td>
<td>.8944</td>
<td>20</td>
</tr>
<tr>
<td>10. Boss</td>
<td>3.65</td>
<td>1.3485</td>
<td>20</td>
</tr>
<tr>
<td>11. Variety</td>
<td>3.80</td>
<td>1.1965</td>
<td>20</td>
</tr>
<tr>
<td>12. Work Cond</td>
<td>3.65</td>
<td>.9333</td>
<td>20</td>
</tr>
<tr>
<td>13. Resign</td>
<td>3.65</td>
<td>1.3870</td>
<td>20</td>
</tr>
<tr>
<td>14. Satisfied</td>
<td>3.35</td>
<td>1.0894</td>
<td>20</td>
</tr>
</tbody>
</table>
Items 1-6, sub-variables, construct the "equity" variable. Items 7-12 construct the "job satisfaction" variable. Item 13 is the key to intent to leave the job and item 14 is an alternative measure of global job satisfaction.

Reliability

The reliability of the pre-test instrument was supported by the fact that Cronbach's alpha was 0.95 for the six items taken from Sorensen's instrument. This was the measurement for equity. The alpha for the six items taken from the short form of the MSQ was 0.69. This was the measurement for job satisfaction. Both are in line with the factors obtained by the original authors and subsequent ones.

The results of the final research will be presented in Chapter 4.
CHAPTER IV

ANALYSIS OF DATA

The purpose of this chapter is to analyze the results of the surveys sent to the 88 Christian Coalition colleges/universities. Of the 88 surveys sent to managerial accountants, 52 (59%) were completed and returned over a three week period. There was no missing data. The following information is taken from the data contained in these questionnaires.

Demographic Data

The three demographic questions in the surveys concern gender, highest degree held, and accounting designations (CPA, CMA, CIA, Other).

Gender--Based on the respondents, 37 (71%) of the 52 were male as seen in Table 5.
Table 5

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Males</td>
<td>37</td>
<td>71</td>
</tr>
<tr>
<td>Totals</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

Highest Degree Held—Most of the managerial accountants held bachelor’s degrees and twenty-one (40%) had master’s degrees (See Table 6).

Table 6

<table>
<thead>
<tr>
<th>Degree</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate’s</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>30</td>
<td>58</td>
</tr>
<tr>
<td>Master’s</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

Accounting Designation—Over a third of the Controllers hold CPA licenses as shown in Table 7 below. None were CMAs or CIAs.
Table 7

<table>
<thead>
<tr>
<th>Designation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPA</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>CMA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CIA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td>30</td>
<td>58</td>
</tr>
<tr>
<td>Totals</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

Variables, Means, and Standard Deviations

Following in Table 8 are the sub-variables, means of the scales, standard deviations of the data collected, and the number of responses. All the scales are from 1-5, as discussed earlier.
Table 8

Variables, Means, and Standard Deviations

<table>
<thead>
<tr>
<th>SUB-VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Respons.</td>
<td>3.54</td>
<td>.9174</td>
<td>52</td>
</tr>
<tr>
<td>2. Education</td>
<td>3.67</td>
<td>.8568</td>
<td>52</td>
</tr>
<tr>
<td>3. Experience</td>
<td>3.52</td>
<td>1.0192</td>
<td>52</td>
</tr>
<tr>
<td>4. Effort</td>
<td>3.23</td>
<td>1.1135</td>
<td>52</td>
</tr>
<tr>
<td>5. Work well</td>
<td>3.48</td>
<td>1.1630</td>
<td>52</td>
</tr>
<tr>
<td>6. Stress</td>
<td>3.06</td>
<td>1.1099</td>
<td>52</td>
</tr>
<tr>
<td>7. Pay</td>
<td>3.17</td>
<td>1.0613</td>
<td>52</td>
</tr>
<tr>
<td>8. Co-worker</td>
<td>3.94</td>
<td>.9983</td>
<td>52</td>
</tr>
<tr>
<td>9. Conscience</td>
<td>4.44</td>
<td>.9375</td>
<td>52</td>
</tr>
<tr>
<td>10. Boss</td>
<td>3.90</td>
<td>.9754</td>
<td>52</td>
</tr>
<tr>
<td>11. Variety</td>
<td>3.75</td>
<td>1.0824</td>
<td>52</td>
</tr>
<tr>
<td>12. Work Cond</td>
<td>4.02</td>
<td>.9800</td>
<td>52</td>
</tr>
<tr>
<td>13. Resign</td>
<td>2.87</td>
<td>1.2838</td>
<td>52</td>
</tr>
<tr>
<td>14. Satisfied</td>
<td>3.96</td>
<td>1.1540</td>
<td>52</td>
</tr>
</tbody>
</table>

Items 1-6, sub-variables, construct the "equity" variable. Items 7-12 construct the "job satisfaction" variable. Item 13 is the key to intent to leave and item 14 is an alternative measure of global job satisfaction.
Reliability

The reliability of the research instrument for the final research was supported by the fact that Cronbach's alpha is 0.96 for the six items taken from Sorensen's instrument. This was the measurement for equity. The alpha for the six items taken from the short form of the MSQ was 0.83. This was the measurement for job satisfaction. Both are in line with the factors obtained by the original authors and subsequent ones.

Correlation Results

The data for the variables chosen for this study were tested using Pearson correlation analysis. While only one definition each of the variables of equity and intent to leave have been used in this study, two are used for the variable job satisfaction since it is defined in a dual fashion in the literature. The measurement of job satisfaction is defined both in a global (single-item) sense and in a composite (mean of facets) manner. The confidence level is 95%.

1. Correlation of Equity and Job Satisfaction—
   (composite).

   The correlation coefficient of equity with job satisfaction is 0.667 with a
significance level of 0.01 (one-tailed). The two variables are strongly related (with $r$
of 1.000=perfect correlation.) The coefficient of determination, or $r$-squared, is 0.445.

2. Correlation of Equity and Job Satisfaction--
   (global).
   The correlation coefficient of equity with job satisfaction is 0.596 with a
   significance level of 0.01 (one-tailed). The two variables are strongly related (with $r$
of 1.000=perfect positive correlation.) The coefficient of determination, or $r$-squared, is
   0.355.

3. Correlation of Job Satisfaction--
   (composite) and Intent to Leave.
   The correlation coefficient of job satisfaction with intent to leave is -0.511 with
   a significance level of 0.01. The two variables are strongly related (with $r$
of -1.000=perfect negative correlation.) The coefficient of determination, or $r$-squared, is
   0.261.

4. Correlation of Job Satisfaction--(global)
   and Intent to Leave.
The correlation coefficient of job satisfaction with intent to leave is -0.705 with a significance level of 0.01 (one-tailed). The two variables are strongly related (with r of -1.000=perfect negative correlation.) The coefficient of determination, or r-squared, is 0.497.

Test of Hypothesis 1.

The null-- The correlation between managerial accountants’ job equity and job satisfaction is not positive.

The alternative-- The correlation between managerial accountants’ job equity and job satisfaction is positive.

Option A--Job satisfaction composite. From the results shown earlier, the null hypothesis is rejected and the alternative hypothesis supported.

Option B--Job satisfaction as global. From the results shown earlier, the null hypothesis is rejected and the alternative hypothesis is supported.
Test of Hypothesis 2.

The null—The correlation between managerial accountants' job satisfaction and intent to leave the job is positive.

The Alternative—The correlation between managerial accountants' job satisfaction and intent to leave the job is not positive.

Option A—Job satisfaction composite. From the results shown earlier, the null hypothesis is rejected and the alternative hypothesis is supported.

Option B—Job satisfaction as global. From the results shown earlier, the null hypothesis is rejected and the alternative hypothesis is supported.

Demographic Correlations

Below are results of statistics from the perspective of the demographic data collected from the surveys. Following the tables are comments concerning the results.
**TABLE 9**

Female Gender Correlations

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>r-squared</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>E:JSC **</td>
<td>.652</td>
<td>.425</td>
<td>15</td>
</tr>
<tr>
<td>E:JSG</td>
<td>.477</td>
<td>.228</td>
<td>15</td>
</tr>
<tr>
<td>JSC:I</td>
<td>-.507</td>
<td>.257</td>
<td>15</td>
</tr>
<tr>
<td>JSG:I **</td>
<td>-.803</td>
<td>.645</td>
<td>15</td>
</tr>
</tbody>
</table>

E=EQUITY CONSTRUCT
JSC=JOB SATISFACTION--COMPOSITE
JSG=JOB SATISFACTION--GLOBAL
I=INTENT TO LEAVE
**=SIGNIFICANT AT THE .05 ONE-TAILED LEVEL OR LESS

**Table 10**

Male Gender Correlations

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>r-squared</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>E:JSC **</td>
<td>.691</td>
<td>.477</td>
<td>37</td>
</tr>
<tr>
<td>E:JSG **</td>
<td>.662</td>
<td>.438</td>
<td>37</td>
</tr>
<tr>
<td>JSC:I**</td>
<td>-.517</td>
<td>.267</td>
<td>37</td>
</tr>
<tr>
<td>JSG:I **</td>
<td>-.669</td>
<td>.448</td>
<td>37</td>
</tr>
</tbody>
</table>
Table 11

Bachelor's Degree Correlations

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>r-squared</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>E:JSC</td>
<td>.512</td>
<td>.262</td>
<td>30</td>
</tr>
<tr>
<td>E:JSG</td>
<td>.370</td>
<td>.137</td>
<td>30</td>
</tr>
<tr>
<td>JSC:I</td>
<td>-.549</td>
<td>.301</td>
<td>30</td>
</tr>
<tr>
<td>JSG:I</td>
<td>-.698</td>
<td>.487</td>
<td>30</td>
</tr>
</tbody>
</table>

Table 12

Master's Degree Correlations

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>r-squared</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>E:JSC</td>
<td>.736</td>
<td>.542</td>
<td>21</td>
</tr>
<tr>
<td>E:JSG</td>
<td>.833</td>
<td>.694</td>
<td>21</td>
</tr>
<tr>
<td>JSC:I</td>
<td>-.623</td>
<td>.388</td>
<td>21</td>
</tr>
<tr>
<td>JSG:I</td>
<td>-.739</td>
<td>.546</td>
<td>21</td>
</tr>
</tbody>
</table>
Table 13
No Designation Correlations

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>r-squared</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>E:JSC</td>
<td>.531</td>
<td>.282</td>
<td>30</td>
</tr>
<tr>
<td>E:JSG</td>
<td>.482</td>
<td>.232</td>
<td>30</td>
</tr>
<tr>
<td>JSC:I</td>
<td>-.463</td>
<td>.214</td>
<td>30</td>
</tr>
<tr>
<td>JSG:I</td>
<td>-.718</td>
<td>.516</td>
<td>30</td>
</tr>
</tbody>
</table>

Table 14
CPA Designation Correlations

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>r-squared</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>E:JSC</td>
<td>.839</td>
<td>.704</td>
<td>21</td>
</tr>
<tr>
<td>E:JSG</td>
<td>.799</td>
<td>.638</td>
<td>21</td>
</tr>
<tr>
<td>JSC:I</td>
<td>-.581</td>
<td>.338</td>
<td>21</td>
</tr>
<tr>
<td>JSG:I</td>
<td>-.701</td>
<td>.491</td>
<td>21</td>
</tr>
</tbody>
</table>
The preceding tables reveal that the relationship for female respondents between equity and job satisfaction--composite is stronger than between equity and job satisfaction--global. But both are positive. The relationship for males between equity and job satisfaction--composite is stronger than between equity and job satisfaction--global. But both are positive. Both are also stronger than for the female correlation counterparts.

The relationship for female respondents between job satisfaction--global and intent to leave is stronger than between job satisfaction--composite and intent to leave. But both are negative. The relationship for male respondents is also stronger for job satisfaction--global and intent to leave than for job satisfaction--composite and intent to leave. But both are negative. Related to intent to leave, the size of the factors r-squared are mixed when comparing females to males.

The relationship for respondents with bachelor’s degrees between equity and job satisfaction--composite is stronger than between equity and job satisfaction--global. But both are positive. The relationship for those with master’s degrees between equity and job satisfaction--global is stronger than between equity and job satisfaction--composite. But both are positive and both
are stronger than the related relationships for bachelor’s degrees.

The relationship for respondents with bachelor’s degrees between job satisfaction--global and intent to leave is stronger than between job satisfaction--composite and intent to leave. But both are negative. The relationship for respondents with master’s degrees is also stronger for job satisfaction--global and intent to leave than for job satisfaction--composite and intent to leave. But both are negative. Related to intent to leave, the factors r-squared are greater for master’s degrees than for parallel numbers for bachelor’s degrees.

The relationship for respondents with no designation between equity and job satisfaction--composite is stronger than between equity and job satisfaction--global. But both are positive. The relationship for those with the CPA designation between equity and job satisfaction--composite is stronger than between equity and job satisfaction--global. But both are positive and both are stronger than the related relationships for respondents with no designations.

The relationship for respondents with no designation between job satisfaction--global and intent to leave is stronger than between job satisfaction--composite and
intent to leave. But both are negative. The relationship for respondents with the CPA designation is also stronger for job satisfaction--global and intent to leave than for job satisfaction--composite and intent to leave. But both are negative. Related to intent to leave, the factors $r^2$-squared are greater for respondents with no designation compared to CPAs for job satisfaction--global, but less for job satisfaction--composite.

In Chapter 5, the research is summarized, the findings discussed, and the limitations delineated. The paper concludes with an outline for future research and final remarks.
CHAPTER V

SUMMARY, DISCUSSION, & CONCLUSIONS

In this research, the background of the study, the literature review, methodology, and analysis of data have been presented. Now the summary, discussion, limitations, future research opportunities, and conclusions are outlined.

Summary of the Research

This study began by raising the question of a managerial accountant who might ask, how does my effort and pay compare to those of other individuals I work with or may know who work elsewhere? The question was first considered in business generically by Adams (1963) in the form of the equity or distributive justice theory. An individual may be comparing the equity of his situation with that of another (referent) or simply measuring his outcome (such as pay, etc.) to his own input (such as effort, etc.) on the job.
Selected literature was then reviewed of the equity theory from Adams to the present covering such situations as work groups and communications (Barr and Conlon, 1994), wage cuts (Gartrell and Paille, 1997), violence in the workplace (Crandall, et al., 1999), and employees' trust of corporate administration (Brockner, et al., 1997).

Other reviewed research on the equity theory included the administration of employee punishment (Ball, et al., 1994), affirmative action (Heilman, et al., 1996), disabled individuals (Stone and Colella, 1996), employee evaluations (Schrader and Steiner, 1996), and burnout among direct-care professionals working with the mentally disabled (van Dierendonck, et al., 1998). Finally, the theory's role was examined in professional compensation (Harder, 1991; Bretz and Thomas, 1992; Howard and Miller, 1993; and Zenger, 1992).

Equity was measured by a construct of the six questions (Part II of the survey). Job satisfaction, another variable in the study, was defined either as multiple items (Part III of the survey) or as a single-item, global question (Part V of the survey). Evidence is such that the global question more accurately reflects reality than do the multiple items (Bolton, 1986). Both methods were used here to compare results.
Intent to leave, defined here as leaving the job in one year, is measured by one question (Part IV of the survey). Research by Lee and Mowday (1987), supported the conclusion generically that the lack of job satisfaction results in job turnover.

The survey instrument was distributed to managerial accountants at 88 colleges and universities. A total of 59% of surveys were returned and analyzed using the statistical software SPSS. Correlation of the data was performed as outline in Chapter IV.

The two research questions addressed in Chapter I were as follows:

1. Is there a positive correlation between managerial accountants’ job satisfaction and job equity?

2. Is there a positive correlation between managerial accountants’ job satisfaction and intent to leave the job?

Discussion of the Results

Based on the two research questions, parallel hypotheses were developed. The questions as to whether or not they are supported are now addressed.
Null Hypothesis 1

$H_{10}$: The correlation between managerial accountants’ job equity and job satisfaction is not positive.

The Pearson correlation analysis supported the rejection of the null. This is true both when job satisfaction was defined by a composite and defined globally. Therefore, the alternate, $(H_{1a})$ the correlation between managerial accountants' job equity and job satisfaction is positive, is supported.

Null Hypothesis 2

$H_{20}$: The correlation between managerial accountants’ job satisfaction and intent to leave the job is positive.

The correlation analysis supports the rejection of the null. This is true both when job satisfaction is defined by a composite and defined globally. Therefore, the alternate, $(H_{2a})$ the correlation between managerial accountants' job satisfaction and intent to leave the job is not positive, is supported.

Limitations of the Survey

This study had a limited scope. It is intended to provide results for a coalition of colleges who employ
managerial accountants to assist them in meeting their objectives. It was limited in at least four ways.

One, it had a small sample. The sample, however, was the entire population of 88 college managerial accountants in the CCC.

Two, the study environment was situated in private colleges and universities. This focal point was based, to a large extent, on my fifteen years of experience teaching at a similar university.

Three, the research was with schools with both an educational and spiritual mission. An interesting comparison will be to analyze results of this research with that of other types of private universities, as well as, state schools.

Four, the schools in this study were all very small compared to the Fortune 500 companies. Because businesses of all sizes work in focus groups, task forces, etc., the results of a study among them may, however, be similar to this study. But clearly, this study was limited to organizations in which there is possibly only one managerial accountant versus scores in multinational enterprises.
Implications for Future Research

This study supports the fact that managerial accountants in the CCC, as a part of the workforce, may not be unlike other workers. Future research should focus on managerial accountants working in different environments. For example, managerial accountants in other non-profit organizations need to be consulted. Furthermore, managerial accountants in for profit companies such as manufacturing, service, and high tech environments may be assisted by research.

This study was limited to the United States, but more work also needs to be done, because of our global economies, in foreign settings, with and without nationals.

Conclusions

Managerial accountants, as members of the human race, probably experience the full range of emotions and/or reactions every person does in the workplace. This includes that fact that they sense both equitable or inequitable treatment on the job and react in a fairly predictable manner. They either experience more job satisfaction, in the case of the former, or less, in the case of the latter. In some cases, inequitable treatment may cause the worker to resign.
Because of the need to be treated equitably, it is incumbent on CCC employers to review their personnel policies to ensure that managerial accountants are being treated fairly. The equality is necessary among workers in the same university as well as between universities and other entities where referents may be located. Lack of attention to this principle may cause unnecessary loss of concentration and/or the presence of quality personnel on the job due to dissatisfaction. It may even lead to the unnecessary expense of retraining of a replacement accountant when a disgruntled employee resigns.
APPENDIX A

CHRISTIAN COALITION OF COLLEGES
<table>
<thead>
<tr>
<th>COLLEGE/UNIVERSITY</th>
<th>ASSIGNED NUMBER</th>
<th>ENROLLMENT</th>
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<td>Abilene Christian University, TX</td>
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</tr>
</tbody>
</table>

APPENDIX B

COLLEGE MANAGERIAL ACCOUNTING JOB SURVEY
COLLEGE MANAGERIAL ACCOUNTING JOB SURVEY

PART I—GENERAL INFORMATION—Please answer the following 4 questions.
1. Title of Position? 

For questions #2-4 place an “X” by the best answer.
2. Highest degree held? 

[ ] High School  [ ] Associates  [ ] Bachelors  [ ] Masters  [ ] Other

3. Gender? Female  Male

4. Accounting designation held, if any?  

[ ] CPA  [ ] CMA  [ ] CIA  [ ] OTHER

***************************************************************************************

PART II—Please answer the following six questions by placing an “X” through the circle under the best answer. Fairness in the following questions means the extent to which a person’s contributions to the school are related to the rewards received. Money, recognition, and physical facilities are examples of rewards.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rewards are very fairly distributed</th>
<th>Rewards are quite fairly distributed</th>
<th>Some fairness</th>
<th>Very little fairness</th>
<th>Rewards are not distributed at all fairly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent are you fairly rewarded considering the responsibilities that you have?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>2. To what extent are you fairly rewarded taking into account the amount of education and training that you have had?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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<tr>
<td>3. To what extent are you fairly rewarded in view of the amount of experience that you have?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>4. To what extent are you fairly rewarded for the amount of effort that you put forth?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>5. To what extent are you fairly rewarded for work that you have done well?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>6. To what extent are you fairly rewarded for the stresses and strains of your job?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
PART III—Please complete the following six comments to express your degree of satisfaction with your present job by placing an “X” through the circle under the best response.

<table>
<thead>
<tr>
<th></th>
<th>Neither Satisfied</th>
<th>Satisfied</th>
<th>Nor Satisfied</th>
<th>Dissatisfied</th>
<th>Very Satisfied</th>
<th>Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My pay and the amount of work I do.</td>
<td>0 0 0 0</td>
<td></td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The way my co-workers get along with each other.</td>
<td>0 0 0 0</td>
<td></td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Being able to do things that don’t go against my conscience.</td>
<td>0 0 0 0</td>
<td></td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The way my boss handles his or her employees.</td>
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<td></td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. The chance to do different things from time to time.</td>
<td>0 0 0 0</td>
<td></td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The working conditions.</td>
<td>0 0 0 0</td>
<td></td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

PART IV—Please answer the following comment by placing an “X” in the circle under the best response.

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<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Don’t Somewhat</th>
<th>Know</th>
<th>Seldom</th>
<th>Never</th>
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</thead>
<tbody>
<tr>
<td>13. I think about leaving my current job within one year.</td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART V—Please answer the following question by placing an “X” in the circle under the best answer.

<table>
<thead>
<tr>
<th></th>
<th>Very Satisfied</th>
<th>Mildly Satisfied</th>
<th>Undecided</th>
<th>Mildly Dissatisfied</th>
<th>Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How satisfied are you with your job in general?</td>
<td>0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your participation in this survey. Upon completion, mail this two page form in the self addressed, stamped envelope. Do not sign your name. Also, mail to me the self addressed, stamped post card at the same time so I can send follow-up surveys to those not received in a couple weeks.

Philip N. Gilmore, CPA, CMA, CIA
APPENDIX C

PERMISSION TO USE SORENSEN QUESTIONS AND SCALE
Mr. Gilmore,
Please feel free to use the material you wish. I only ask that the work receive a citation. And, good luck with your endeavor!
Wayne Sorensen

Wayne B. Sorensen, Ph.D., FACHE
Chair and Associate Professor
Department of Health Administration
Southwest Texas State University
San Marcos, Texas 78666-4616
512-245-3556; FAX: 512-245-8712
----- Original Message ----- 
From: Gilmore, Philip N. <pngilmor@liberty.edu>
To: <WS06@swt.edu>
Sent: Tuesday, November 23, 1999 10:36 AM
Subject: Request to use Doctoral Dissertation Survey

> Dr. Sorensen: I'm a DBA student at Nova Southeastern University and am
> writing my dissertation on the Equity Theory and Managerial Accountants.
> Would you grant me permission to use part of the survey you used in your
> Commitment" at University of Iowa. I would like to ask respondents the six
> questions on distributive justice located on page 158 of your
dissertation.
> If you have any questions, please contact me. Your consideration of this
> matter is greatly appreciated. Phil Gilmore, 1971 University Blvd.,
> Lynchburg, VA 24502
>
December 9, 1999

Philip N. Gilmore
202 Collington Dr
Lynchburg, VA 24502

Dear Philip N. Gilmore:

We are pleased to grant you permission to use the six questions you requested from Minnesota Satisfaction Questionnaire 1977 short version for use in your research.

Vocational Psychology Research is currently in the process of revising the MSQ manual and it is very important that we receive copies of your research study results in order to construct new norm tables. Therefore, we would appreciate receiving a copy of your results including 1) demographic data of respondents, including age, education level, occupation and job tenure; and 2) response statistics including scale means, standard deviations, reliability coefficients, and standard errors of measurement. If your tests are scored by us, we will already have the information detailed in item #2.

Your providing this information will be an important and valuable contribution to the new MSQ manual. If you have any questions concerning this request, please feel free to call us at 612-625-1367.

Sincerely,

Dr. David J. Weiss, Director
Vocational Psychology Research
APPENDIX E

INSTRUCTION LETTER TO MANAGERIAL ACCOUNTANTS
Dear Christian Colleague:

I need your help—about 10 minutes of your time.

I have been an accounting faculty member at Liberty University for 15 years after working in accounting/finance at Moody Bible Institute for seven years. Currently I’m working on a DBA degree from Nova Southeastern University in Florida.

Part of my dissertation requirement is to survey controllers at Christian colleges regarding their job and related satisfaction. If you don’t do the work of a controller (accountant), please pass this survey along to the individual who does.

If you will help, complete the short survey and mail it back to me in the self addressed, stamped envelope. All results are confidential.

So I know which schools have responded, without reference to specific results on the survey, also mail back to me the preaddressed, pre-stamped postcard. Once again, all results are confidential and you or your school will not be identified except in list of colleges represented in the population.

Thank you in advance for your time and effort.

Sincerely,

Philip N. Gilmore, CPA

Enclosures: Survey
            Postcard
            Envelope
APPENDIX F

PRETEST RAW DATA
|   | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
| # |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 | 2 | 1 | 4 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 4 | 5 | 4 | 4 | 4 | 4 | 3 |
| 2 | 3 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 4 |
| 3 | 1 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 5 | 5 | 5 | 4 | 3 | 3 | 4 |
| 4 | 3 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 5 | 5 | 5 | 4 | 4 | 2 | 4 |
| 5 | 3 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 4 | 5 | 2 |
| 6 | 3 | 1 | 4 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 2 |
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| 9 | 1 | 1 | 4 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 1 | 1 | 2 | 5 | 2 |
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| 12| 2 | 2 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 5 | 3 | 2 | 3 |
| 13| 2 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 5 | 3 | 5 | 4 | 4 | 5 |
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| 15| 2 | 1 | 2 | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 2 | 3 | 5 | 5 | 3 | 5 |
| 16| 2 | 1 | 1 | 3 | 4 | 2 | 3 | 4 | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 |
| 17| 2 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 4 | 2 | 3 | 4 | 4 | 5 |
| 18| 3 | 1 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 5 | 5 | 2 | 3 |
| 19| 3 | 2 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 2 | 5 |
| 20| 2 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 4 | 1 | 4 | 2 | 5 | 2 |

**LEGEND:**

A=HIGHEST DEGREE  
B=GENDER  
C=DESIGNATION(S)  
D-I=EQUITY, J-O=JOB SATISFACTION

(D-I=EQUITY, J-O=JOB SATISFACTION)

D=RESPONSIBILITIES  
E=EDUCATION  
F=EXPERIENCE  
G=EFFORT  
H=WORK  
I=STRESS  
P=LEAVING  
J=PAY  
K=CO-WORKERS  
L=CONSCIENCE  
M=BGSS  
N=Different  
O=CONDITIONS  
Q=Satisfied (Global)
APPENDIX G

FINAL RESEARCH RAW DATA
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| 25 | 2 | 2 | 4 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 4 | 4 | 2 | 3 | 4 | 5 |

**LEGEND:**

A=HIGHEST DEGREE  1=ASSO., 2=BACH., 3=MASTERS, 4=OTHER
B=GENDER  1=FEMALE, 2=MALE
C=DESIGNATION(S)  1=CPA, 2=CMA, 3=OTHER, 4=None

(D-I=EQUITY, J-O=JOB SATISFACTION)

D=RESPONSIBILITIES  J=PAY
E=EDUCATION  K=CO-WORKERS
F=EXPERIENCE  L=CONSCIENCE
G=EFFORT  M=BOSS
H=WORK  N=Different
I=STRESS  O=CONDITION
P=LEAVING  Q=Satisfied (Global)
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REFERENCES


Floyd, S. W., Schroeder, D. M., & Finn, D. M. (1994). "Only if I'm first author": Conflict over credit in


Vocational Rehabilitation. 16. Minneapolis: Vocational Psychology Research, University of Minnesota.


