

**An Investigation of
Organizational-Professional Conflict
in Management Accounting**

by

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(ABSTRACT)

A number of behavioral studies have suggested that, where professionals are employed in bureaucratic organizations, there can be serious conflicts between the norms of one's profession and those of one's employing organization. Known as organizational-professional conflict (OPC), this conflict has been associated with dysfunctional organizational outcomes, including increased turnover and decreased job satisfaction among professional employees. Previous studies of this phenomenon have been performed with respect to several professions, including public accounting and internal auditing, as well as engineering and other non-accounting professions. Until now, however, the antecedents and consequences of OPC have not been studied in the emerging profession of management accounting.

Questionnaires were mailed to 599 members of the National Association of Accountants. A 47-percent response provided a usable sample of 281, of whom 201 are management accountants. Variables measured included organizational

commitment, professional commitment, and conflict between accountants and their supervisors regarding the professional status of management accounting (SSCON), which are hypothesized antecedents of OPC; OPC itself; and job satisfaction and turnover intent, which are hypothesized consequents of OPC.

The correlation and regression models depicting the hypotheses were supported by the data, and all were significant at $\alpha = 0.05$, with the relationships in the predicted direction. A path model, which depicts hypothesized relationships as causal linkages was constructed and tested. The model was supported by the data: OPC explained 16 percent of the variance in turnover intent for non-CMAs, 23 percent for CMAs; and it explained 15 percent of the variance in job satisfaction for non-CMAs, 11 percent for CMAs.

The hypothesized antecedents of OPC explained 38 percent of the variance in OPC for non-CMAs, 45 percent for CMAs. The variable SSCON, which has not appeared in previous studies, was a significant predictor of OPC ($p = 0.004$) for CMAs, but it was not significant ($p = 0.059$) for non-CMAs. The most important predictor of OPC turned out to be organizational commitment, which was highly significant for both groups: $p < 0.0001$ for non-CMAs, and $p = 0.0002$ for CMAs.

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Table of Contents

INTRODUCTION	1
An Overview of the Study	4
Role Conflicts in Management Accounting	6
Management Accounting Defined	7
Ethical Standards for Management Accountants	9
The Professionalization of Management Accounting	13
The Process of Professionalization	16
The Growing Numbers and Growing Problems of Salaried Professionals ..	19
Concluding Remarks	21
REVIEW OF RELEVANT PRIOR RESEARCH	24
Professionalism of Management Accountants	25
Background of OPC Research	28
Measuring Organizational and Professional Commitment	30

Turnover and Job Satisfaction	31
Sorensen and Sorensen [1974]	32
Variables of Interest	33
Expected Results	33
Data Collection and Subjects	34
Instruments	34
Data Analysis	35
Results, Conclusions, Interpretation	35
Discussion	36
Senatra [1980]	37
Variables of Interest	38
Hypotheses	39
Data Collection	40
Subjects	41
Data Analysis	41
Results and Interpretations	42
Discussion	43
Aranya, Pollock, and Amernic [1981]	43
Variables of Interest	44
Hypotheses	45
Data Collection	45
Data Analysis	46
Results, Conclusions, and Interpretation	46

Discussion	47
Aranya, Lachman, and Amernic [1982]	48
Hypotheses	48
Subjects	49
Questionnaire	50
Data Analysis and Results	52
Additional Comments	53
Norris and Niebuhr [1983]	54
Variables of Interest	55
Professionalism	55
Organizational Commitment	57
Job Satisfaction	58
Hypotheses	59
Data Collection	59
Data Analysis	61
Discussion	61
Aranya and Ferris [1984]	62
Research Model and Hypotheses	65
Subjects	66
Research Methodology	66
Analysis and Results	68
Other Comments	68
Harrell, Chewning, and Taylor [1986]	69

Summary	73
HYPOTHESIS DEVELOPMENT AND RESEARCH METHODOLOGY	74
Introduction	74
The Organizational-Professional Conflict Model	75
Antecedents of OPC	75
Self-Supervisor Conflict Regarding Professionalization	76
Consequences of OPC	79
Proposed OPC Model for Management Accountants	81
Hypotheses	81
The Questionnaire	83
Tenure and Supervisor Status	85
Self-Supervisor Conflict	85
OPC, Job Satisfaction, and Turnover Intent	86
Subjects	86
Non-Response Bias and Measures Taken to Enhance the Survey Response	88
Statistical Analysis Procedures	90
Path Analysis	91
Concluding Summary	97
ANALYSIS OF RESULTS	98
Introduction	98
Descriptive Summary of Survey Respondents	99

Results of Hypothesis Testing	102
Quadrant Analysis for Professionalization and OPC	111
Path Analysis	115
Concluding Summary	122

DISCUSSION OF RESULTS, LIMITATIONS, AND RECOMMENDED

EXTENSIONS	123
Introductory Comments	123
A Recapitulation of the Research Questions and Design	124
Discussion and Interpretation of the Research Findings	125
The Unanticipated Importance of Organizational Commitment	128
Limitations of the Study	131
Opportunities for Further Research	133
Concluding Comments	134

BIBLIOGRAPHY

BIBLIOGRAPHY	136
---------------------------	------------

STANDARDS OF ETHICAL CONDUCT FOR MANAGEMENT AC-

COUNTANTS	148
Standards of Ethical Conduct for Management Accountants	148
Competence	149
Confidentiality	149
Integrity	149

Objectivity	150
Resolution of Ethical Conflict	150
CORRELATION, REGRESSION, AND PATH COEFFICIENT TABLES	151
Part 1: ALL MGT ACCOUNTANTS - CMA'S AND NON-CMA'S	
COMBINED	151
Part 2: NON-CMAs ONLY	155
Part 3: CMAs ONLY	158
QUESTIONNAIRE AND TRANSMITTAL LETTER	162
PART A -- INFORMATION ABOUT THE PARTICIPANT	164
PART B -- THE PARTICIPANT'S ORGANIZATION	166
PART C -- THE PARTICIPANT'S PROFESSION	168
PART D -- PROFESSIONALIZATION OF MANAGEMENT AC- COUNTING	170
VITA	172

List of Tables

Table 1. Norris and Niebuhr’s [1983] Correlation Matrix 60

Table 2. Aranya and Ferris’s [1984] OPC Model. 64

Table 3. Proposed Fourfold Typology for OPC and Professionalism 77

Table 4. Proposed OPC Path Model for Management Accountants 80

Table 5. Summary of Participant Data 101

Table 6. Professionalization Quadrants Defined 113

Table 7. Summary of Professionalization Quadrant Data 114

Table 8. Path Analysis -- All Management Accountants -- Direct Effects 116

Table 9. Path Analysis -- Non-CMAs Only -- Direct Effects 117

Table 10. Path Analysis -- CMAs Only -- Direct Effects 118

Table 11. Ranking of Mean OPC Level by Occupation within the Sample 120

Table 12. Significance table for path models (See Appendix B for details) 121

Chapter 1

INTRODUCTION

Management accountants, like other professionals employed by organizations, often find themselves in positions that are characterized by multiple, and sometimes conflicting, goals or requirements. The resulting conflict stems from two legitimate, yet distinct, and sometimes contradictory, sources of authority, which must coexist in any organization that hires professional employees. According to Peter Blau:

Professional authority rests on the certified superior competence of the expert, which prompts others voluntarily to follow his directives because they consider doing so to be in their own interest. Bureaucratic authority, in contrast, rests on the legitimate power of command vested in an official position, which obligates subordinates to follow directives under the threat of sanctions.¹

¹ Blau, Peter M., "The Hierarchy of Authority in Organizations," in Heydebrand, Wolf V. (ed.), *Comparative Organizations: The Results of Empirical Research*, Englewood Cliffs, NJ: Prentice-Hall, 1973, p.546.

If one perceives that an employer's requirements are in disagreement with the technical or ethical standards of one's profession, the resulting condition has been termed *organizational-professional conflict*, or OPC.² OPC has been studied with respect to several of the professions, and in some cases it has been found to predict important organizational consequences, including the professional employee's job satisfaction and an expectation of leaving the organization (migration tendency or turnover intent).

Most of the attention that the accounting-related professions has received in the OPC literature has been focused on U.S. certified public accountants (CPAs) and Canadian chartered accountants (CAs), employed by large public accounting firms. Accountants employed by industry, government, and other nonprofessional organizations may not share the same attitudes, goals, concerns, and conflicts as those accountants in the large public accounting firms.

Being professional organizations by their nature, public accounting firms are owned and managed by persons who are members of the same profession as their professional employees. Previous research has suggested that there may be significant differences in the level of OPC between professionals working in professional organizations and those working in nonprofessional organizations, with the OPC tending to be greater in nonprofessional settings than in professional settings. Therefore, although OPC has been found to exist in public accounting

² For example: Aranya, N., and K. R. Ferris, "A Reexamination of Accountants' Organizational-Professional Conflict," *The Accounting Review*, January 1984, pp. 1-15. This study is described in Chapter 2.

firms, the literature suggests that it may be more pronounced in management accounting than in public accounting.

Management accountants are salaried professional employees within a non-professional organization. Their typical employers are manufacturing and merchandising corporations. Management accountants' responsibilities include the recording and summarizing of all financial activities of the firm, preparation of budgets and other reports to be used by management for planning and control purposes, and the preparation of financial statements for submission to owners, creditors, employee organizations, taxing authorities, and other government agencies. Clearly, the management accountant must please the employer if the relationship is to continue; however, the accountant may believe in an even higher level of accountability to directors, stockholders, creditors, and government agencies, and to the ethical and technical standards of the accountant's profession. When the goals or demands of one's organization conflict with professional ethics or standards, implying the existence of OPC, difficult and sometimes perilous choices have to be made by the professional employee.

During the past several years, a research methodology and a tentative descriptive model have begun to evolve in the literature dealing with the relationships between professionals and their organizations, in which the antecedents and consequences of OPC are identified and measured.³ Until the present study, this

³ Two of the OPC studies that are reviewed in Chapter 2 are: Aranya, Nissim, and Kenneth R. Ferris, "A Reexamination of Accountants' Organizational-Professional Conflict," *The Accounting Review*, January 1984, pp. 1-15; and Harrell, Adrian,

line of research has not been extended into management accounting, except for small numbers of management accountants who were, by chance, included in samples selected for studies of U.S. certified public accountants (CPAs) and Canadian chartered accountants (CAs). Because of these small samples, and because the research questions and methodologies were directed primarily at issues of interest in the public accounting context, previous studies have shed little light on the OPC problem among management accountants.

Because management accounting has recently taken on some of the characteristics of a profession (including a code of professional ethics and a certifying examination), and because some of its leaders have expressed the goal of having management accounting recognized as one of the true professions, it has become more important and more relevant for the management accounting profession to be studied in terms of how it is similar to and different from other accounting-related professions, in terms of the causes and consequences of OPC.

An Overview of the Study

Questionnaires were mailed to 599 members of the National Association of Accountants (NAA), which is the largest professional organization composed

Eugene Chewning, and Martin Taylor, "Organizational-Professional Conflict and the Job Satisfaction and Turnover Intentions of Internal Auditors," *Auditing: A Journal of Practice and Theory*, Spring 1986, pp.109-121.

mainly of management accountants in the U.S. Of the 281 responses (46.9 percent), 201 indicated current employment as management accountants.

The hypotheses under examination, which are developed in Chapter 3, are concerned with (1) the factors that appear to cause OPC in management accountants and (2) the organizational consequences, primarily turnover intent, that previous studies suggest to be correlated with high levels of OPC. Since employee turnover is commonly thought to be an unwanted and expensive occurrence, it is important that research such as this be performed in the various professions, including those related to accounting, to identify the characteristics of jobs and organizations that contribute to employee turnover. If OPC and its contributing factors can be better understood by employers and their professional employees, it may be possible for management accountants' turnover to be better understood, predicted, and perhaps managed.

Previous accounting research has studied OPC with respect to CPAs in public practice (for example, Aranya and Ferris, 1984) and internal auditors (Harrell, Chewing and Taylor, 1986). However, OPC in the emerging profession of management accounting has been given little attention. Since there tend to be important organizational differences between the companies in which management accountants are employed, *vis-a-vis* those of CPAs in public practice and internal auditors, it is important for this evolving segment of the accounting profession to be studied separately from the others. That is, because the jobs and organizations of management accountants are different from those of CPAs in

public practice, research findings regarding OPC in CPAs may not be valid in predicting the OPC and/or the associated turnover intentions of management accountants.

In addition to the problem of valid extrapolation of previous research results, there may be some variables that are important with respect to management accountants that do not have relevance to other accounting-related professions or have not been considered in the OPC research dealing with other professions. For example, since many management accountants have supervisors who are not accountants, a condition that does not normally exist in a public accounting context, important attitudinal differences may exist between some management accountants and their supervisors. Such differences, it is hypothesized, may have a direct impact on the accountant's OPC level, and hence, an indirect impact on turnover in management accounting positions. This variable, the perception of attitudinal differences about the professional status of management accounting, is included in the present study, whereas it has not appeared in previous OPC research in accounting.

Role Conflicts in Management Accounting

Since management accountants often work under the supervision of managers who are not accountants, the supervisors of management accountants may tend

to be relatively unaware of, and perhaps unconcerned about, the technical standards and ethical responsibilities of the accountant's profession and thus may, whether knowingly or unknowingly, place pressures on the management accountant which are in conflict with those standards and responsibilities. The literature suggests, but with little substantiation, that the role conflicts of management accountants may be much more severe than those of CPAs in public accounting practice. Aranya and Ferris [1984], whose subjects were primarily CPAs but included a small number of management accountants, concluded that OPC is significantly lower in professional organizations than in nonprofessional organizations. This tentative conclusion from their study, which is described in Chapter 2, suggests that the body of accounting knowledge lacks important evidence with respect to the roles and OPC of management accountants. The present study attempts to begin the process of accumulating this important information regarding the profession of management accounting.

Management Accounting Defined

Management accounting has been defined by the National Association of Accountants (NAA) as

The process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate, and control within an organization and to assure appropriate use of and accountability for its resources. Management accounting also comprises the preparation of financial reports for nonman-

agement groups such as stockholders, creditors, regulatory agencies, and tax authorities.⁴

As the above definition implies, an important difference between the job situations of management accountants and those of public accounting practitioners lies in the identity of their employers. Those accountants who are engaged in public accounting are either self-employed as proprietors (sole owners) or partners (joint owners) of a public accounting firm, or they are common-law employees of such proprietors or partners. Thus, there is ordinarily no superior or supervisor of a CPA in public practice who is not also a CPA practitioner.

The principal products of public accounting firms are accounting, auditing, tax, and consulting services, which are sold primarily to clients unrelated to the CPA firm and its owners, except for the professional-client relationship. Management accountants, on the other hand, generally represent a service department within a nonprofessional organization whose revenue is derived from products or services other than accounting services. Within such an organization, the management accountant may be subordinate to one or more individuals whose interest in accounting is limited, and whose knowledge and veneration of the professional standards and ethics of accountants may be negligible. Prior to the present study, it had been suggested that the superiors of management accountants, particularly those who are not present or former accountants themselves, tend to exert pressure on their management accountant subordinates to report

⁴ "Management Accounting Terminology," (Statement on Management Accounting No. 2), New York: National Association of Accountants, June 1, 1983, p. 65.

financial results that are more favorable than GAAP standards would dictate.⁵ If such pressures indeed exist, then, at least with respect to those management accountants who take seriously the standards and ethics of their profession, increased levels of OPC are the obvious result.

Ethical Standards for Management Accountants

In 1983, the National Association of Accountants (NAA), an organization to which many U.S. management accountants belong, adopted its *Statement of Ethical Standards for Management Accountants*. This statement, adherence to which is a stated requirement for membership in the NAA, requires that management accountants seek an appropriate resolution within the organization of any conflicts that may arise between their responsibility to adhere to the accepted rules of accounting and any contrary instruction from their superiors in their organization. The statement suggests an order of priority for attempting to resolve such disagreements within the organization. However, the ethics statement also recognizes that, in some instances, internal resolution may be impossible, in which case the management accountant would be required by the ethical standard to *resign from the organization*.⁶

⁵ For example, see D. C. Burns and W. J. Haga, "Much Ado About Professionalism: A Second Look at Accounting", *The Accounting Review*, July 1977, pp. 705-715.

⁶ National Association of Accountants, "Standards of Ethical Conduct for Management Accountants," *Statements on Management Accounting No. 1C*, New York: National Association of Accountants, June 1, 1983, p. 3. The full text of this statement is included as an appendix to this study.

This requirement, that a management accountant resign if there is an irreconcilable internal ethical conflict, parallels a long-standing requirement, in the AICPA's Code of Professional Ethics, that a CPA withdraw from an audit engagement when a client refuses to abide by generally accepted accounting principles or refuses to give the auditor access to all of the company's financial records.

Prior to the adoption of the NAA's ethics statement, many authors had pondered the need for such a statement. It was suggested by some that all of the "true professions," have some form of ethical standards they are expected to uphold, although with varying degrees of enforceability. This was significant in light of the fact that, for at least 15 years, the NAA has been attempting to steer a course toward gaining public acceptance of management accounting as one of the "true professions." While this has been happening, the literature also reflects a growing realization that management accountants may be faced with OPC in their accounting positions.

Merz and Groebner [1982] studied the ethical problems faced by CPAs who had made the transition from public accounting to management accounting. They noted that a CPA who is employed in industry is considered to be exempt from most of the requirements of the American Institute of Certified Public Accountants' (AICPA) Code of Professional Ethics as it applies to CPAs in public practice. However, Merz and Groebner show that CPAs in industry still tend to feel a loyalty to the AICPA's ethics and that internal conflicts are experienced

by some management accountants whose employers direct them to take actions that would violate the ethical rules of CPAs.⁷

Merz and Groebner's survey was completed by 174 CPAs in industry, government and education; the authors state that most of these respondents were management accountants. By means of the survey as well as personal interviews, Merz and Groebner identified the following as examples of the ethical dilemmas faced by some of the management accountants they surveyed.

- Management directs the management accountant to shift expenses between two periods for the purpose of smoothing income. Management acknowledges beforehand that the expenses have already been correctly recorded.
- Management accountants have to decide what and how much to tell outside auditors.
- Owner-managers of small businesses pressure their management accountants to perform acts that might be unethical, such as classifying a capital cost as a period cost for tax purposes.
- Management accountants are asked to provide access to contractor and client data that should be kept confidential.
- Management exerts pressure on management accountants to prepare forecasts that justify management's plans.

⁷ C. Mike Merz and David F. Groebner, "Ethics and the CPA in Industry," *Management Accounting*, September 1982, pp. 44-48.

- A division controller faces the dilemma of whether or not to 'blow the whistle' on a manager violating corporate policy.⁸

Merz and Groebner's work is examined more closely in Chapter 2 of this study.

It should be pointed out before proceeding, that the impact on the life of the management accountant who resigns over an ethical dilemma is typically much greater than the impact on the life of a CPA who withdraws from an audit engagement over an ethical disagreement with the client. A single client may comprise only a small percentage of a CPA's practice; thus, the loss of one client would not be expected to impact the firm's revenue by more than a few percentage points.⁹ Management accountants, on the other hand, are often dependent on a single employer for most, if not all of their income, as well as for the other benefits of employment, such as medical insurance and retirement security. Furthermore, due to the more diversified nature of CPAs' experience and their continual contact with numerous professional colleagues and potential employers, the typical CPA in public practice may face considerably less difficulty and anx-

⁸ Merz and Groebner, 1982, p. 46.

⁹ In fact, if one audit client comprises more than about five to ten percent of the firm's fee revenues, some observers believe that the CPA firm's professional independence is impaired, which precludes the rendering of a professional opinion on the fairness of the financial statements under audit. A CPA's independence is also considered impaired if the client has not yet paid the CPA's professional fee for the prior year's audit.

ity than the management accountant when it is necessary to seek new employment, even where the CPA is a salaried employee and not an owner of the firm.

Thus, although there are measures that many management accountants can take to become more financially independent, resignation over an ethical disagreement represents a major life event for the management accountant, far more so than for the CPA who withdraws from a particular engagement or who resigns from a CPA firm. Hence, any job-threatening conflict between one's profession and one's employer may have significance for the management accountant that goes far beyond that which has been observed among CPAs employed in public accounting.

The Professionalization of Management Accounting

In 1972, the National Association of Accountants established the Institute of Management Accounting (IMA), which in turn established the Certificate in Management Accounting (CMA) program.¹⁰

The three objectives of the CMA program, as stated by the NAA at its inception, are as follows:

¹⁰ The name of this certificate was later changed to Certified Management Accountant, and the IMA was renamed the Institute of Certified Management Accountants, or ICMA.

- To establish management accounting as a recognized profession
- To foster higher educational standards in the field of management accounting
- To establish an objective measure of an individual's knowledge and competence in the field of management accounting.

In carrying out its charge, the ICMA awards the CMA Certificate to candidates who pass a rigorous five-part examination and demonstrate a specified level of experience in the management accounting field. More than 6,000 CMA Certificates have been awarded since the program's inception, with the number growing more rapidly during the last few years than in the early years of the program.

Professionalization has been attempted, with varying degrees of success, by many occupational groups. The study of professionalization is in the realm of sociology literature, to which the writer now turns in order to explore some of the commonalities and differences among occupations, that appear to be relevant in studying management accountants' attempts at professionalization, as well as looking into the professionalization process itself.

Harold Wilensky, who is a researcher and writer in the professionalization literature, states that "Any occupation wishing to exercise professional authority must find a technical basis for it, assert an exclusive jurisdiction, link both skill

and jurisdiction to standards of training, and convince the public that its services are uniquely trustworthy.”¹¹ Wilensky explains that

In the minds of both the lay public and professional groups themselves, the criteria of distinction seem to be two: (1) The job of the professional is *technical* – based on systematic knowledge or doctrine acquired only through long prescribed training. (2) The professional man adheres to a set of *professional norms*.¹²

In the sense used by Wilensky, “technical” refers not to a scientific orientation, but to the necessity for formal training *before* entering the job market in one’s chosen profession. In other words, professionalism implies a lengthy and formal education process and thus precludes the possibility that all of the needed knowledge and skills can be learned on the job. In this sense, the training required for entry into the ministry is technical, just as is the training for the practice of medicine or engineering. In fact, with medicine and the ministry being two of the earliest established professions, it is interesting to see how they both meet fully the definitional requirements of professionalism, despite their obvious contrasts. Wilensky explains, “Among the dominant denominations in the ministry, rigorous standards of training are also stressed, and doctrines are well codified and systematized, providing a technical base for practice -- a base less secure than that of medicine, but still within the scope of the definition.”¹³

¹¹ Wilensky, Harold L., “The Professionalization of Everyone?”, *The American Journal of Sociology*, Vol. LXX, September 1964, p. 138.

¹² *Ibid.*

¹³ *Ibid.*

Regarding the sets of *professional norms*, the second basic requirement for professional recognition: “These norms dictate not only that the practitioner do technically competent, high-quality work, but that he adhere to a service ideal -- devotion to the client’s interests more than personal or commercial profit -- should guide his decisions when the two are in conflict.”¹⁴ Mere lip service to professional norms is not sufficient. The superior opportunity offered by professional status exists only where clients believe that the service norm is truly operative. “The service ideal is the pivot around which the moral claim to professional status revolves.”¹⁵

The Process of Professionalization

Because of the technical nature of professional work, it is thought that neither the public at large, nor the individual client or nonprofessional boss of a professional employee is capable of assessing professional competence. Therefore, only members of the *same profession* can judge professional competence. Carrying this logic a step further, the professionalization process involves becoming less open to criticism from clients or nonprofessional supervisors, and becoming more sensitive to criticism from professional colleagues.

¹⁴ Ibid.

¹⁵ Ibid.

Borrowing again from the work of Wilensky [1964], from Hughes [1958, 1963]¹⁶, and from Hall [1973]¹⁷ the following is an approximate ordering of events that have been observed in a number of occupations that have been successful in achieving professional status:

1. Technical and organizational developments create an occupation.
2. A training school or university curriculum is established.
 - This standardized training becomes a requisite for entering the occupation.
 - A corps of people develops within the profession who teach rather than practice.
3. A professional association is formed by some of the early graduates of the professional training program.
4. The professional association changes the name of the occupation. (For example, hospital superintendents become hospital administrators, and relief investigators become caseworkers.¹⁸) Where the training requirement is established by an already-existing occupational association, the probability of successful professionalization is lower, apparently because of negative re-

¹⁶ Hughes, Everett, *Men and Their Work*, Glencoe, IL: Free Press, 1958; and "Professions," in Kenneth Lynn (ed.), *The Professions, in America*, Beacon Press, 1963.

¹⁷ Hall, Richard H., "Professionalization and Bureaucratization," in Wolf V. Heydebrand (ed.), *Comparative Organizations: The Results of Empirical Research*, Englewood Cliffs, NJ: Prentice-Hall, 1973.

¹⁸ Wilensky, 1964, p. 144.

actions on the part of present association members who are happy with the status quo and thus resistant to change.

5. A campaign emerges to separate the competent from the incompetent, leading to increased internal conflict as well as intense competition with outsiders who are engaged in similar work.
6. An intense effort is launched to gain legal support to protect the exclusive job territory of the profession. This may take the form of a required state license to do the kind of work that this profession does. Although legal protection (in such forms as a required license to practice and incorporation of the profession's code of ethics in a statute) has been gained by a number of professions, it is "not part of the 'natural history' of professionalism."¹⁹
7. A formal code of ethics is developed in order to reduce internal competition and protect the profession's clients. Wilensky [1964] notes that, where a code of ethics is adopted near the beginning of the professionalization process, it is doubtful that the effort will succeed; "in ten of thirteen established professions or professions in process it comes at the end (civil engineering, law, medicine)."²⁰

¹⁹ Wilensky, 1964, p. 145.

²⁰ Wilensky, 1964, p. 145.

The Growing Numbers and Growing Problems of Salaried Professionals

William Kornhauser states:

Organizations are increasingly governed by professional standards, and professions are increasingly subject to bureaucratic controls. Both trends are expressions of the growing interdependence of organizations and professions. As a result, professions simultaneously confront new opportunities to extend their values and new pressures to modify those values. As professional standards are applied to new areas, and as professionally trained people occupy new positions, new if not greater sources of pressure on professional standards emerge. The single most important new source of pressure is the large-scale organization within which more and more professional activity is conducted. Therefore, the modes of adaptation to organizational pressures are critical determinants of the future of professional values.²¹

Earlier in this chapter, it was mentioned that non-professional supervisors may be incapable of meaningfully evaluating the performance of their professional employees. As William Kornhauser succinctly points out: "Colleague control runs counter to bureaucratic authority."²² This may be a source of some of the cynicism and other negative reactions among professional employees and possibly one underlying factor for the lack of agreement between management accountants and their bosses regarding the professional status of management accounting, which is included in the current study. However, it will be left to future studies to test this and other possible causes of the self vs. supervisor dis-

²¹ Kornhauser, William, *Scientists in Industry: Conflict and Accommodation*, Berkeley, CA: University of California Press, 1962, p. 7.

²² Kornhauser, 1962, p. 43.

agreement. Other observations, mentioned as possible factors in straining the relationships between professional management accountants and their organizations include:

1. Employers' reluctance to encourage professionals to take an active part in their professional associations, particularly when company time and money are involved.
2. Employers' failure to recognize the need for continuing professional education for management accountants.
3. Employers' reluctance to support codes of ethics that indicate professionals have a higher level of responsibility to their ethical standards and to the public than to their employing organizations.
4. The structure of salaries and promotions, which sometimes puts the salaried professional in a dead-end position, with limited opportunity for continued personal, professional, and financial growth.

The writer observes that experienced professional employees sometimes feel a need to either (1) switch jobs within the company, typically into a management position, concerning which, Kornhauser indicates, "Professional influence may be increased when members of the professional staff move into executive posi-

tions, but then they are not relying on their expertise,”²³ or (2) leave the organization, hoping to find a position in another organization that provides greater opportunities for growth and satisfaction within one’s chosen profession.

A final observation of Wilensky will close out this section:

Indeed, in a culture permeated by the idea of professionalism but little touched by its substance, many occupations will be tempted to try everything at once or anything opportunity and expediency dictate. The “professionalization” of labor, management, and commerce is largely of this kind.²⁴

Concluding Remarks

The research reported in this study purports to investigate the relationships among some of the factors that other studies have suggested as causes of discontentment and turnover among management accountants. Organizational-professional conflict has been chosen for the central focus of the study, because tentative models from the literature point to OPC as a potentially significant causal factor for dissatisfaction and turnover.

Also, previous studies have provided guidance in seeking the causes of OPC. Similar studies in the public accounting sector suggest organizational commit-

²³ Kornhauser, 1962, p. 13.

²⁴ Wilensky, 1964

ment, professional commitment, and supervisor status as logical contributors to OPC effects. In addition, the present study incorporates a previously untested variable, namely, the level of conflict between the management accountant and the supervisor regarding the professional status of management accounting.

The present study has extended the existing literature in at least the following specific ways:

- This study has extended to the profession of management accounting a growing and interdisciplinary line of research dealing with conflicts in the relationship between organizations and their professional employees.
- Explicit recognition is given to role distinctions and role conflicts, present in management accounting, which may not be subject to extrapolations of previous research findings relating to CPAs, Canadian chartered accountants, internal auditors, or other professional groups.
- A measure is developed in this study for the differing assessments of the professionalism of management accounting by the management accountants and their supervisors. It is hypothesized that such differences are significant predictors of organizational-professional conflict among professional employees who have nonprofessional supervisors.

The writer hopes that this study adds a useful dimension to the body of knowledge dealing with professionalism in accounting and the professionalization

of accounting-related occupations, as well as some insight into the effects of the attitudes of supervisors of professional employees.

In Chapter 2 relevant literature is reviewed regarding roles and role conflicts in accounting and other professions. Chapter 3 is a description of the research plan that was developed and followed. In Chapter 4, the writer reports on the data analysis and presents conclusions resulting from this analysis, and Chapter 5 contains a discussion of the implications and limitations of the study and suggestions of ways in which this line of research may be usefully extended.

Chapter 2

REVIEW OF RELEVANT PRIOR RESEARCH

The review of previous research relating to the questions under study is reported in this chapter. In particular, empirical papers that demonstrate the state of the art in examination of organizational-professional conflict (OPC) are reviewed, along with studies of other relevant attitudinal variables that have been suggested to be related to OPC.

The section immediately following presents some thoughts on the status of professionalism in management accounting. After that, there follows a somewhat detailed discussion of empirical papers that have examined relationships among various groups of the relevant variables, but primarily in the context of public accounting employees. The necessity for similar research among professional *management* accountants becomes clearer in light of the fact that the re-

sults of these studies cannot be generalized so as to include management accountants.

Professionalism of Management Accountants

Although the answer to what constitutes a profession is not as clear as one might prefer, Burns and Haga [1977] performed a useful service by (1) explaining what factors distinguish a profession from an occupation and (2) relating these factors separately to the professional status of CMAs, CIAs, and CPAs.²⁵

Burns and Haga asserted that “shopping lists” of attributes proposed by previous writers are not sufficient to generate professional status for accountants or others. In Burns and Haga’s view, in order to be a profession, its members must have “capacity to intimidate” whatever audience threatens a profession’s autonomy, whether they be employers, clients, or other occupations. The essential relationship between a member of a profession and others in the work world is one of authority. ... When an occupation must rely solely upon argument or persuasion in controlling others, this is prima facie evidence that it lacks the status of a genuine profession.²⁶

²⁵ Burns, D. C., and W. J. Haga, “Much Ado About Professionalism: A Second Look at Accounting,” *The Accounting Review*, July 1977, pp. 705-715.

²⁶ *Ibid.*, p. 709.

Burns and Haga went on to explain that two conditions are required in order to have the “capacity for intimidation”. They are (1) cruciality and (2) mystique. “A profession is an occupation that possesses both a high degree of cruciality and a high degree of mystique in the eyes of its relevant work audience”.²⁷ *Crucial* implies a service that “touches upon matters vital to life, health, purse, or freedom.” *Mystique* means that “the work is seen as esoteric, incomprehensible, and consisting of doing things that ordinary mortals, in the lay perception, cannot do.”²⁸ “Entry barriers are a great help in maintaining a profession’s status once it is achieved; but they are not its source.”²⁹

Burns and Haga contended that a number of occupations have tried vainly to become professions: “Tales of frustration may be told candidly by teachers, librarians, nurses, pharmacists, engineers, hospital administrators, insurance underwriters, stockbrokers, and urban planners. They have all tried vigorous professionalization; they have all failed at it.”³⁰

²⁷ Ibid., p. 709.

²⁸ Ibid., p. 710.

²⁹ Ibid., p. 711.

³⁰ Ibid., p. 707.

Borrowing from the work of Hughes³¹, Burns and Haga explained what rewards occupational groups seek when they undertake professionalization campaigns:

1. Freedom from supervision (or regulation) by others outside their field of work.
2. A monopoly over their line of work, restricting its practice to members who embrace the field's values.
3. Personal identity based on their line of work rather than based on an organizational position.
4. Power to determine who is admitted and who is denied admission to their field of work.
5. Power to discipline colleagues who deviate from the work values and accepted practices.

Burns and Haga suggested that attempts by management accountants to professionalize illustrate the presence of the motives listed above. However, they later asserted that "From the standpoint of our intimidation model, CMAs have not yet achieved the status of a genuine profession. ... CMAs do not possess the capacity to intimidate their corporate employers, and this prevents them from assuring practical implementation of their management accounting work ideol-

³¹ Hughes, Everett C., "Professions," in Kenneth Lynn, ed., *The Professions in America*, Beacon Press, 1963.

ogy.”³² However, Burns and Haga seem to have believed that continued development of professional standards and ethics will increase the level of professionalism of management accounting.

Background of OPC Research

As early as the 1950s, behavioral scientists were looking at the relationships between conflicts within organizations and related outcomes that might be considered dysfunctional to the organization, including employee turnover.³³ The common focus of many such studies has been a search for those characteristics of individuals, organizations, and particular jobs that predict or explain turnover among professional employees. In the early years of this line of research, it was assumed by a number of researchers that a professional employee must choose between commitment to the organization and commitment to the profession. The assumption was that a high level of commitment to either one precluded a high level of commitment to the other, as the two commitments were assumed to be

³² Burns and Haga, op. cit., p. 712.

³³ For example, see Gouldner, A. W., “Cosmopolitans and Locals,” *Administrative Science Quarterly*, December 1957, pp. 282-306.

inherently incompatible. For example, see Gouldner [1958]³⁴ and Shepard [1961].³⁵

Subsequent research has tended to contradict the assumption that commitment to one's organization and profession are mutually exclusive. That they can be high or low independently of one another has been demonstrated by Friedlander³⁶, Flango and Brumbaugh³⁷, Aranya and Ferris³⁸, and Harrell, Chewning, and Taylor³⁹.

If one's commitment to either the organization or the profession is quite low in relation to the other, indicating that the professional employee has made a choice, as assumed by the early writers cited above, then no substantial conflict would exist between the two kinds of commitment, because the commitment of choice would always, or nearly always, take precedence over the other. However, if the professional employee has a relatively high level of commitment to both the

³⁴ Gouldner, op. cit.

³⁵ Shepard, C., "Orientations of Scientists and Engineers," *Pacific Sociological Review*, Fall 1961, pp. 79-83.

³⁶ Friedlander, F., "Performance and Orientation Structure of Research Scientists," *Organizational Behavior and Human Performance*, March 1971, pp. 169-183.

³⁷ Flango, V. and R. Brumbaugh, "The Dimensionality of the Cosmopolitan-Local Construct," *Administrative Science Quarterly*, March 1974, pp. 198-210.

³⁸ Aranya, N., and Kenneth R. Ferris, "A Reexamination of Accountants' Organizational-Professional Conflict," *The Accounting Review*, January 1984, pp.1-15.

³⁹ Harrell, Adrian M., Eugene Chewning, and Martin Taylor, "Organizational-Professional Conflict and the Job Satisfaction and Turnover Intentions of Internal Auditors," *Auditing: A Journal of Practice and Theory*, Spring 1986, pp. 109-121.

organization and the profession, then an internal conflict will be experienced by such an individual whenever the requirements or goals of the organization and profession are in disagreement.

As mentioned in Chapter 1, for example, Merz and Groebner [1982]⁴⁰, who surveyed CPAs who had worked in public accounting and were now working for industrial firms, found that such individuals tend to bring with them into the industrial setting a long-term loyalty to the technical and ethical standards of public accounting, to which they had grown accustomed. When the organization demands of the professional employee actions or a lack of actions, that would constitute a violation of such standards, then OPC is said to exist.

Measuring Organizational and Professional Commitment

Porter, Steers, Mowday, and Boulian [1974] developed and validated the much-used 15-item scale for measuring organizational commitment.⁴¹ Their instrument has been subsequently used by Kerr, von Glinow, and Schriesheim

⁴⁰ Merz and Groebner, 1982, op. cit.

⁴¹ Porter, L. W., R. M. Steers, R. T. Mowday, and P. V. Boulian, "Organizational Commitment, Job Satisfaction, and Turnover Among Psychiatric Technicians," *Journal of Applied Psychology*, October 1974, pp. 603-609.

[1977]⁴², Aranya, Lachman, and Amernic [1982],⁴³ Aranya and Ferris [1984]⁴⁴, and Harrell, Chewning, and Taylor [1986].

Turnover and Job Satisfaction

Waters, Roach, and Waters [1976]⁴⁵, among others, suggest that the employee's intention to leave an organization is a significant predictor of actual turnover. Thus, turnover intent is often used as a surrogate for actual turnover. Surrogation is a necessity in research of this type, because employees who have left an organization are generally not available to provide the researcher with the needed information. The item typically used to measure turnover intent is a question asking the employee to indicate the likelihood that he or she will seek another organization to work for within the next year.⁴⁶ It is assumed that the worker's intent to leave is strongly related to the actual probability of leaving and, there-

⁴² Kerr, S., M. A. von Glinow, and J. Schriesheim, "Issues in the Study of Professionals in Organizations: The Case of Scientists and Engineers." *Organizational Behavior and Human Performance*, April 1977, pp. 329-345.

⁴³ Aranya, Nissim, Ran Lachman, and Joel Amernic, "Accountants' Job Satisfaction: A Path Analysis," *Accounting, Organizations and Society*, Vol. 7, No. 3, 1982, pp. 201-215.

⁴⁴ Nissim Aranya and Kenneth R. Ferris, "A Reexamination of Accountant's Organizational-Professional Conflict," *The Accounting Review*, January 1984, pp. 1-15.

⁴⁵ Waters, L. K., D. Roach, and C. W. Waters, "Estimates of Future Tenure, Satisfaction, and Biographical Variables as Predictors of Termination," *Personnel Psychology*, Spring 1976, pp. 57-60.

⁴⁶ Aranya and Ferris, op. cit. p. 9.

fore, that turnover intent is a suitable and easily measured surrogate for actual turnover, which is much more difficult to measure.

Job satisfaction is a construct that has been the subject of controversy, regarding its definition as well as its measurement. Some researchers have tied job satisfaction to the degree to which a job is perceived to satisfy the various levels of needs of the individual, from physiological needs to self-esteem needs. This approach requires a complex and lengthy measurement scale, and it is most often used when job satisfaction is the primary focus to the study. Others take a different approach, in which the employee is asked a single question, which is answered on a Likert-type scale, to assess the degree to which the employee is or is not satisfied with his or her present job.⁴⁷

The next several sections of this chapter are summaries of some of the significant studies that have led to the current investigation of OPC and its antecedents and outcomes with respect to management accountants.

Sorensen and Sorensen [1974]

⁴⁷ For a discussion of this definitional issue, the reader may wish to read M. G. Evans, "Conceptual and Operational Problems in the Measurement of Various Aspects of Job Satisfaction," *Journal of Applied Psychology*, 53, 1969, pp. 93-101.

Sorensen and Sorensen⁴⁸ investigated the question of whether the difference between professional and bureaucratic ideals of the CPA and the actual professional and bureaucratic orientations in the organizations systematically relate to job satisfaction and job migration.

Variables of Interest

The following were the variables in which Sorensen and Sorensen were most interested:

- Bureaucratic orientation (and bureaucratic deprivation)
- Professional orientation (and professional deprivation)
- Migration tendency
- Job satisfaction

Expected Results

Hypotheses were not stated as such, but the authors stated that they expected bureaucratic orientation and professional orientation to be inversely and positively related to turnover, respectively, and positively and inversely related to job satisfaction, respectively.

⁴⁸ Sorensen, James E., and Thomas L. Sorensen, "The Conflict of Professionals in Bureaucratic Organizations," *Administrative Science Quarterly*, March 1974, pp. 98-106.

Data Collection and Subjects

The subjects were 264 CPAs in six offices of each of four large public accounting firms (24 offices in all). The 264 responses represented an 80 percent response rate. The subjects were drawn randomly, stratified by position in the firm. Likert type scales were used to indicate agreement/disagreement.

Instruments

The professional/bureaucratic scale included items such as the following: A respondent was considered *professional* if he agreed with “After an extended discussion with a resident partner, felt that his ideas were better than the partner’s and continued to hold these different opinions.” or disagreed with “If a partner could not sell his idea to his staff for a change in the rules and/or procedures of the firm, he should force them to try it.” Migration was measured as follows: Five years from now I will be

working with the same firm

working with a different firm

working in a non-CPA organization.

Job satisfaction was measured using a scale developed by the Bureau of Business Research, Ohio State University. The scale used is not described in the article.

Data Analysis

The sample was partitioned into quadrants for high and low professional and bureaucratic orientations. The researchers then compared the means for the quadrants and tested differences for significance based on their standard deviations.

Results, Conclusions, Interpretation

Sorensen and Sorensen found significant ($p < 0.05$) differences in professional and bureaucratic orientations among different ranks in the firms. Partners had highest bureaucratic orientation and lowest professional orientation. Juniors were just the opposite. They consistently found higher professional orientation at lower levels, and higher bureaucratic orientation at higher levels in the firms, but they are unable to tell whether the individuals' orientation changes as one advances in the firm, or whether only those with certain orientations tend to stay and be promoted in the firm. The authors suspect based on Vollmer [1966] that the individuals tend to adapt to bureaucratic environments, becoming more bureaucratic and less professional through socialization over time. However, longitudinal studies would be required to verify this belief. They found that bureaucratic orientation is a significant ($p < 0.05$) predictor of migration tendency. Professional orientation was not significant as a predictor of migration.

The authors state that, “For the CPA, conflict and deprivation, in professional and bureaucratic terms, *result in* job satisfaction and job migration.”⁴⁹ (emphasis supplied). The authors recommend monitoring of the adaptive process of professionals in bureaucratic organizations, indicating the need for a longitudinal study of these variables.

Discussion

The professional and bureaucratic orientations of Sorensen and Sorensen are essentially the same constructs as the cosmopolitan and local constructs of Gouldner and the professional commitment and organizational commitment constructs of Porter, et al., Kerr, et al., Norris and Niebuhr, Aranya, Lachman and Amernic, Aranya and Ferris, and Harrell, et al. Although Sorensen and Sorensen do not address OPC as a variable in their study, they are clearly moving in the direction of its recognition, as they state:

The CPA with high professional, high bureaucratic orientation is not apt to fulfill both orientations because they are conflicting.⁵⁰

Sorensen and Sorensen refer to the large CPA firms as *professional bureaucracies*, an idea borrowed from Montagna [1968]. They suggest, as Montagna did, that, although such firms are owned and managed by professional accountants,

⁴⁹ Sorensen and Sorensen, op. cit., p. 105. Note apparent causal inference.

⁵⁰ Ibid., p. 102.

their size and highly structured organizational rules and procedures make them more like bureaucracies than like professional organizations. Firm size has been included in some such studies as a potential predictor of this variable, but the results have not been strong or consistent.

The Sorensen and Sorensen [1974] study was important, particularly because (1) it continued a line of research that was beginning to explain the relationships between professionals and their employers and (2) the setting chosen for the study was that of the professional accountant. Even so, the study says little that can be generalized to accounting firms other than the largest ones, and it is even less generalizable to the field of management accounting, the setting for the present study.

Senatra [1980]

The purpose of Senatra's study⁵¹ was to "examine the consequences of role conflict and ambiguity experienced by audit seniors and to identify conditions in the organizational climate of a CPA firm which have the potential to contribute to role conflict and ambiguity."⁵²

⁵¹ Senatra, Phillip T., "Role Conflict, Role Ambiguity, and Organizational Climate in a Public Accounting Firm," *The Accounting Review*, October 1980, pp. 594-603.

⁵² *Ibid.*, p. 594.

Variables of Interest

Senatra defined role conflict as "...The simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make difficult or impossible compliance with the other."⁵³ The specific role conflict that Senatra is referring to, although he does not use this term, is organizational-professional conflict, or OPC. Role ambiguity is defined as "The absence of adequate information which is required in order for persons to accomplish their role in a satisfactory manner."⁵⁴

Senatra suggested that the consequences of role conflict and role ambiguity would include job related tension, job dissatisfaction, and propensity to leave the organization (also called turnover intent or migration tendency). It is difficult to separate role conflict from the tension that results from role conflict, so most of the studies dealing with the idea just refer to role conflict or OPC as including the resultant tension within the meaning of the same term. Senatra's definition of organizational climate is couched in terms of the presence or absence of the following ten subconstructs: Violations in chain of command, formalization of rules and procedures, emphasis on subordinate personnel development, tolerance of error, top management receptiveness [to suggestions and ideas], adequacy of work

⁵³ Ibid., p.595. Attributed by Senatra to Wolfe and Snoek [1962, p. 103])

⁵⁴ Senatra, op. cit., p. 595, attributed by Senatra to Kahn, et al., [1964], pp. 21-23.

coordination, decision timeliness, information suppression, adequacy of authority, adequacy of professional autonomy.

Hypotheses

Senatra set forth the following hypotheses:

H1: Personal consequences are significantly related to role conflict and role ambiguity in the direction indicated:

1. Job-related tension (+)
2. Job satisfaction (-)
3. Propensity to leave the organization (+)

H2: Specific measures of organizational climate are significantly related to role conflict and role ambiguity in the direction indicated:

1. Violations in chain of command (+)
2. Formalization of rules and procedures (-)
3. Emphasis on subordinate personnel development (-)
4. Tolerance of error (-)
5. Top management receptiveness [to suggestions and ideas] (-)
6. Adequacy of work coordination (-)
7. Decision timeliness (-)
8. Information suppression (+)

9. Adequacy of authority (-)
10. Adequacy of professional autonomy (-)

Data Collection

Senatra used a questionnaire, consisting of 103 items, combined into 29 variables. There was no follow-up mailing, since the questionnaires were completely anonymous. Senatra examined the data for nonresponse bias; no significant differences were revealed between early and late respondents. Responses were on a 1-to-5 Likert-type scale.

The questionnaire included measures of the following variables, with scales adapted from the source indicated:

- Role conflict and role ambiguity: Rizzo et al. [1970].
- Job-related tension: House and Rizzo [1972].
- Job satisfaction: Bullock [1965] (Bureau of Business Research, Ohio State University).
- Propensity to leave: Respondents were asked to indicate their intentions to stay or leave the firm.
- Professional autonomy: Respondents were asked to indicate to what extent they have the freedom to exercise their own professional judgment in carrying out their responsibility.

- Organizational climate: House and Rizzo [1972]

Subjects

The subjects selected for this study were all audit seniors⁵⁵ in eight offices of one large public accounting firm. The firm's identity was not revealed. Of 107 questionnaires mailed, 88 usable responses were received, for a response rate of 82 percent.

Data Analysis

Senatra used Pearson product-moment correlation, and multiple regression (in the descriptive, not predictive sense) as the primary analysis tools. R-square was used to describe the proportion of total variation in role conflict and role ambiguity explained by the independent variables. Betas (standardized partial regression coefficients) were used to examine relationships between role conflict and role ambiguity and the specific independent variables, while controlling for the confounding effects of the other independent variables; significance was tested with standard F test.

⁵⁵ Seniors are professional staff members, most if not all of whom are CPAs, who have about two to six years of experience with the firm.

Results and Interpretations

The results of the data analysis are given below for the two hypotheses in the study.

H1: All relationships are in the predicted direction, but only the relationships between role conflict and job related tension and between role ambiguity and job satisfaction were statistically significant ($p < 0.01$ in both cases).

H2: Organizational climate variables were significant predictors of both role conflict (R-squared = 0.43) and role ambiguity (R-squared = 0.59).

The implications of these results, according to Senatra, are as follows: The difficulties people experience in carrying out their organizational roles increase as conflicts and ambiguities increase. Persons in such positions often escape the situation by leaving the organization. "Seniors often have the opportunity to accept a different position."⁵⁶ Senatra believes that the degree of stress experienced by seniors may be reduced if their superiors could be made aware of which factors in the organizational climate are significantly related to conflict and ambiguity. Therefore, "Conventional explanations for turnover (excessive travel, inadequate salary, etc.) may be incomplete."⁵⁷

⁵⁶ Senatra, 1980, p. 601.

⁵⁷ Senatra, op. cit., p. 601.

The goal is not necessarily the elimination of stress, but the containment of stress at levels which are tolerable and low in cost to the individual and the organization.⁵⁸

Discussion

The study has at least the following limitations: Results may be firm specific. Since only one firm was included in the study, and since the organizational climate among accounting firms can vary greatly, these results cannot be confidently generalized to other firms. And certainly, they cannot be generalized to work situations outside of public accounting, such as management accounting. Some potentially important variables were not included, such as organizational level (Sorensen and Sorensen [1974]). Finally, the sample size was small, making it more likely that relationships that might have been significant in a larger sample were insignificant in this study.

Aranya, Pollock, and Amernic [1981]

This study focuses on factors contributing to or associated with differing levels of professional commitment in Canadian chartered accountants (CAs). It differs from earlier studies by including attitudinal factors (organizational commitment,

⁵⁸ Senatra, op. cit., p. 602.

professional commitment, and satisfaction with rewards), as well as structural factors (such as firm size).⁵⁹

Variables of Interest

Aranya, Pollock, and Amernic's model assumes that three major factors influence commitment to one's profession:

1. Organizational commitment (The relative strength of identification with and involvement in the organization).
2. Professional-organizational conflict (Degree to which organizations allow professional employees to act in accordance with their own professional judgment).
3. Satisfaction with rewards.

A 4th variable, organizational level, is included as a moderator variable, but is not considered one of the major factors. Dysfunctional outcomes are expected to include job dissatisfaction and job migration [Sorensen and Sorensen, 1974, discussed above.]

⁵⁹ Aranya, N., J. Pollock, and J. Amernic, "An Examination of Professional Commitment in Public Accounting," *Accounting, Organizations and Society*, Vol. 6, No. 4, 1981, pp. 271-280.

Hypotheses

Aranya, Pollock, and Amernic's hypotheses are as follows:

H1: There is no statistically significant difference between professional commitment of (1) partners, (2) supervisors, (3) seniors and semi-seniors.

H2: There is no statistically significant relationship between professional commitment and: (1) organizational commitment, (2) satisfaction with level of income, and (3) professional-organizational conflict.

Data Collection

A questionnaire was mailed to the participants, which included the following parts: (a) background questions, (b) measures of job satisfaction, (c) scales of organizational and professional commitment, and (d) social desirability index.

The subjects to whom questionnaires were sent included 2,590 Chartered Accountants (CAs) randomly selected from all over Canada. The usable response rate was 46.6 percent (1,206 CAs). Apparently, this was the same sample as used by Aranya, Lachman, and Amernic [1982].

Data Analysis

The hypotheses were tested using the following statistical procedures:

H1: Used one-way analysis of variance (ANOVA) with the Least Significant Difference procedure (LSD, a multiple comparison technique for determining significance of differences among group means).

H2: Standard regression analysis was used, including dummy variables to indicate level within the firm. (A dummy variable is one that takes on either a value of 0 or a value of 1, indication simply that a specified condition either is or is not present. There are three of these, representing the three levels hierarchical tested.)

Results, Conclusions, and Interpretation

Results of hypothesis tests follow. Note that hypotheses were presented in null form, so rejection indicates that significant results were found. H1 was rejected at the 0.01 significance level; seniors had professional commitment lower than the other two groups. The difference between partners and managers was not significant.

H2 was rejected with respect to organizational commitment. Organizational commitment and professional commitment were highly correlated ($r = 0.44$). Organizational-professional conflict was correlated with professional commitment at $r = 0.27$. Satisfaction correlated with PC at $r = 0.23$. For the total sample, all of the predictor variables were significant at the 0.01 level.

Discussion

This study differs from some later studies of similar variables in that it looks at OPC as predictor of professional commitment rather than professional commitment as a predictor (for example, Aranya & Ferris [1984], and Harrell, Chewning, and Taylor [1986], which are discussed below). In general, this was a valuable and well-planned survey. It included a very large sample, OPC was included among the variables of interest, as was the accountant's level in the hierarchy of the firm. However, turnover intent was not included. Therefore, the study gives us no further evidence as to how these commitment and conflict variables impact the probability that an accountant will migrate from the organization. And finally, as with the other studies that have been restricted to the public accounting firm environment, one cannot safely generalize the results to include accountants employed in nonprofessional settings, such as management accountants.

Aranya, Lachman, and Amernic [1982]

An important milestone in the accounting literature is the 1982 study by Aranya, Lachman, and Amernic.⁶⁰ Aranya, Lachman, and Amernic analyzed their data by using path analysis.⁶¹ With job satisfaction as the focus of their study, these researchers developed a series of interrelated hypotheses based on self-actualization needs and autonomy needs that had been observed in other professional groups.

Hypotheses

The hypotheses were as follows:

1. The following direct paths exist for CAs:⁶²
 - Professional commitment directly affects need deprivation.
 - Need deprivation directly affects organizational commitment.

⁶⁰ Aranya, Nissim, Ran Lachman, and Joel Amernic, "Accountants' Job Satisfaction: A Path Analysis," *Accounting, Organizations and Society*, Vol. 7, No. 3, 1982, pp. 201-215.

⁶¹ Path analysis, which was also used in the current study, is a form of causal modeling, in which the observed Pearson product-moment correlations between pairs of variables are decomposed into their direct and indirect causal components. See Chapter 3 for a more detailed discussion of path analysis.

⁶² The CA, or Chartered Accountant is the Canadian equivalent of the CPA, or Certified Public Accountant, in the United States.

- Need deprivation directly affects job satisfaction.
 - Organizational commitment directly affects job satisfaction.
 - Organizational commitment directly affects intentions to leave the organization.
 - Job satisfaction directly affects intentions to leave the organization.
2. For CAs, direct paths other than the ones described in hypothesis 1 but implied by the just determined model do not exist among professional commitment, need deprivation, organizational commitment, job satisfaction and intentions to leave the organization.
 3. There are no differences among the following CA groups with respect to the paths described in hypothesis 1:
 - Partners and sole practitioners in professional settings.
 - Employees in professional settings.
 - Employees in bureaucratic settings.
 4. There is no difference among the CA groups described in hypothesis 3 with respect to the statement of hypothesis 2.

Subjects

Aranya, Lachman, and Amernic randomly selected 2,626 English-speaking CAs from throughout Canada. A questionnaire was mailed to each of these individuals, and of the 2,626, 1,206 (46.6 percent) usable responses were received. Fifty-one percent of the respondents were in the public accounting sector, with

the remainder divided among the public sector, financial institutions, retail organizations, and manufacturing.

Questionnaire

The questionnaire consisted of the following parts:

1. Background questions.
2. Measures of need deprivation, job satisfaction, and migration tendencies.
3. Scales of organizational and professional commitments.
4. Social desirability index.

The portions of the questionnaire that are relevant to the present study are described below.

Organizational commitment was measured using the 15-item scale developed by Porter, Steers, Mowday, and Boulian in their 1974 study of turnover among psychiatric technicians.⁶³ All of the items in this scale are statements to which the subjects respond on a seven-point Likert-type scale, ranging from "Strongly disagree" to "Strongly agree." For example, one of the 15 items is as follows: "I am willing to put in a great deal of effort beyond that normally expected in order to

⁶³ Porter, Lyman W., Richard M. Steers, Richard T. Mowday, and Paul V. Boulian, "Organizational Commitment, Job Satisfaction and Turnover among Psychiatric Technicians," *Journal of Applied Psychology*, October 1974, pp. 603-609.

help this organization be successful.” Categories among the 15 items include belief in and acceptance of the organization’s goals and values, willingness to exert great effort on behalf of the organization, and a desire to maintain membership in the organization. Six of the 15 items contained reversed wording as a means of reducing response-set bias. Overall commitment was taken as the mean of the 15 responses, and internal consistency was achieved, as measured by Chronbach’s alpha⁴ of 0.91.

Professional commitment was measured using a scale identical to that for organizational commitment, except the word “organization” was replaced with the word “profession.” This pair of commitment scales has since been adopted by a number of other researchers and has also been selected for use in the present study.

Job satisfaction was measured by the statement “All in all I am satisfied with my job.” Again, the 7-point Likert-type scale was the means of response. This measure of job satisfaction is much less elaborate than measures of job satisfaction in many other studies; however, given the elusive nature of the job satisfaction construct and the fact that there is little or no consensus as to its true definition, this measurement device seems to be adequate. In essence, it allows the *participants* to define job satisfaction in their own way, rather than imposing upon them a list of predetermined dimensions of the construct.

⁴ Chronbach, L. J., “Coefficient Alpha and the Internal Structure of Tests,” *Psychometrika*, Vol. 16, 1951, pp. 297-334.

This means of measuring job satisfaction is attractive for its simplicity and for the fact that it does not add unnecessarily to the length of the questionnaire. This approach has accordingly been adopted for use in the present study.

Migration intention (called turnover intent in the present study) was measured via the question: "Do you intend to change the organization with which you are now associated." Because it appeared that this question might have an ambiguous meaning, it was replaced in the present study with the item used by Aranya and Ferris [1984], which states "It is highly likely that I will actively look for another organization to work for in the next year."⁶⁵

Data Analysis and Results

The predicting variables accounted for 59 percent of the variance in job satisfaction (R -squared = 59 percent). The components of hypothesis 1 were supported by the data, except that no direct effect was found between job satisfaction and migration tendency, and this was true for all of the groups included in the study. The authors do not indicate the significance level used for their hypothesis testing.

⁶⁵ Aranya and Ferris, *op. cit.*

As for group differences, the null hypotheses were all rejected, meaning that significant intergroup differences were found to exist. In particular, the following intergroup differences were noted:

- For both employee groups, organizational commitment had a direct, negative effect on migration tendencies, but among partners and sole practitioners there was no effect.
- Professional commitment and organizational commitment were positively related in owners and employees of CA firms, but there was no such effect among employees in bureaucratic organizations.

Additional Comments

The Aranya, Lachman, and Amernic study made important progress in the study of commitment variables, job satisfaction, and turnover intent among accounting professionals. In addition, they employed path analysis with an appropriate degree of rigor in the examination of their data. Their sample was large and, in all likelihood, was representative of the population of Canadian CAs in three important work settings: owners of CA firms, employees of CA firms, and CAs employed in bureaucratic (nonprofessional) organizations. Unfortunately, they did not include OPC among the variables measured. Now that OPC is thought to be an important predictor of some of their variables of interest, one

can only guess how its inclusion might have strengthened the explanatory power of their models.

Also, since only Canadian CAs were surveyed, and since little is known about the similarities and differences between the Canadian and U.S. accounting professions with respect to the variables under study, their results may have limited generalizability to accounting groups outside of Canada.

Norris and Niebuhr [1983]

The organization literature has suggested that increased turnover and decreased job satisfaction may be associated with situations in which organizational and professional loyalties are in conflict with one another. Norris and Niebuhr examine the relationship between professionalism and organizational commitment from the perspective of the impact that various professional dimensions have on the professional-organization interface. This is done in an environment perceived to be supportive of professional accounting orientations.⁶⁶ Norris and Niebuhr's study purports to extend the analysis by examining the relative job

⁶⁶ Norris, Dwight R., and Robert E. Niebuhr, "Professionalism, Organizational Commitment and Job Satisfaction in an Accounting Organization," *Accounting, Organizations and Society*, Vol. 9, No. 1, 1983, pp. 49-59.

satisfaction of those accountants professionally committed and those committed primarily to the organization.⁶⁷

Variables of Interest

The key variables in the Norris and Niebuhr study include professionalism, organizational commitment, and job satisfaction. Their concepts of these variables are discussed in the subsections that follow.

Professionalism

A central construct in the Norris and Niebuhr study is the concept of *professionalism*. Professionalism was measured on the attitudinal dimensions of Kerr, Von Glinow, and Schriesheim (described below). *Professionalism*, as the term is used by Norris and Niebuhr, is synonymous with Gouldner's [1957] *cosmopolitans* (as opposed to *locals*). *Cosmopolitans* are characterized as having (1) High loyalty to the profession, (2) high commitment to specialized tasks, and (3) Reliance to reference groups external to the employing organization.⁶⁸ Early writers assumed that professional and organizational orientation were opposite poles of a single dimension and hence not compatible. This was later challenged

⁶⁷ Norris and Niebuhr, op. cit, pp. 49-50.

⁶⁸ Gouldner, A. W., "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles," *Administrative Science Quarterly*, 1957, pp. 282-306.

by Hall (1968) and others, whose work suggests that employees can be high or low on either or both, indicating that they are really separate dimensions. The relationship between organizational commitment and professional commitment has been complex and inconsistent.

The modern concept of professionalism originated with the work of Hall (1968).⁶⁹ Hall writes that professionalism has (1) attitudinal aspects and (2) structural aspects, which are described as follows:

- **Structural aspects:** Characteristics of the occupation. For example, structural aspects include creation of a full time occupation, establishment of a training school, formation of a professional association, and adoption of a code of ethics.
- **Attitudinal aspects:** Intellectual and emotional characteristics of the individual professional person. These include a sense of calling to the field, a belief in service to the public, belief in self-regulation, autonomy, and the use of one's professional organization as a major referent.

The dimensions of professionalism, as outlined by Kerr, von Glinow, and Schriesheim [1977]⁷⁰ are listed here:

⁶⁹ Hall, Richard H., "Professionalism and Bureaucratization," *American Sociological Review*, 1968, pp. 92-104.

⁷⁰ Kerr, S., M. A. von Glinow, and J. Schriesheim, "Issues in the Study of Professionals in Organizations: The Case of Scientists and Engineers", *Organizational Behavior and Human Performance*, 1977, pp. 329-345.

1. Autonomy -- perceived right to make decisions about both the means and goals associated with one's work.
2. Collegial maintenance of standards -- a belief that standards should be enforced by fellow professionals who are the only ones properly equipped to adequately evaluate work in the field.
3. Ethics -- a felt responsibility to avoid self-interest and emotional involvement with clients in the course of rendering services, as well as a dedication to high quality service to the client.
4. Professional commitment -- dedication to the work and the long-term career aspirations of the professional.
5. Professional identification -- use of the profession and fellow professionals as major referents.

Kerr et al. do not believe that it is proper to call an occupation a profession just because it is widely recognized. However, public accounting has been described as meeting the requirements to be properly called a profession. As for the other occupations within accounting, such as internal auditing and management accounting, this is not as clear.

Organizational Commitment

Organizational commitment was defined by Porter et al. [1976] as "the relative strength of an individual's identification with and involvement in a particular

organization.”⁷¹ Three factors are recognized as important in identifying organizational commitment:

1. A strong belief in and acceptance of an organizations goals and values
2. A willingness to exert considerable effort on behalf of the organization.
3. A strong desire to maintain membership in the organization.

Chisholm and Cummings [1979] found that the degree of organizational success was an important work related variable influencing organizational commitment.⁷²

Job Satisfaction

Porter et al. [1973] suggest that organizational commitment may represent a related but more global evaluative linkage between the employee and the organization that includes *job satisfaction* among its specific components. Norris and Niebuhr suggest that organizational commitment may be much more slowly formed, but more stable and enduring than job satisfaction, which more a function of current (perhaps temporary) aspects of the work environment.

⁷¹ Porter, L. W., W. J. Crampon, and F. J. Smith, “Organizational Commitment and Managerial Turnover,” *Organizational Behavior and Human Performance*, Vol. 15, 1976, pp. 87-98.

⁷² Chisholm, R. F., and T. G. Cummings, “Job Characteristics, Alienation, and Work-Related Behavior: A Study of Professional Employees,” *Journal of Management*, 1979, pp. 57-70.

Hypotheses

Norris and Neibuhr hypothesized the following:

- H1: To the extent that the accounting organization is supportive of the professional environment, organizational commitment and professional commitment will be positively correlated.
- H2: Professional and organizational commitment for the accountants will both be positively related to job satisfaction.

Data Collection

Questionnaires were mailed to the subjects, who were 135 professional employees in three offices of a single big-eight accounting firm. The questionnaires included the following scales:

- Professionalism -- 20-item scale of Schriesheim [1977].
- Organizational commitment -- 15-item questionnaire of Porter et al. [1974].
- Job satisfaction -- Job description index of Smith et al., [1969].

The usable response rate was 46 percent.

Table 1. Norris and Niebuhr's [1983] Correlation Matrix

	OC	PRO	AUTO	PC	ETH	ID	CMS	JSAT
OC	1.0	0.55*	-0.07	0.73*	0.43*	0.40*	0.30*	0.66*
PRO		1.0	0.37*	0.63*	0.74*	0.69*	0.71*	0.39*
AUTO			1.0	-0.05	-0.02	-0.19	0.19	-0.09
PC				1.0	0.35*	0.43*	0.26*	0.51*
ETH					1.0	0.59*	0.50*	0.34*
ID						1.0	0.38*	0.33*
CMS							1.0	0.17
JSAT								1.0

* Significant at $p < 0.05$

Legend:

OC	=	Organizational Commitment
PRO	=	Professionalism
AUTO	=	Autonomy
PC	=	Professional Commitment
ETH	=	Professional Ethics
ID	=	Professional Identification
CMS	=	Collegial Maintenance of Standards
JSAT	=	Overall Job Satisfaction

Data Analysis

Analysis of variance (ANOVA) and correlation were used as the primary analysis tools. The matrix of zero-order Pearson product-moment correlation coefficients (r) is included in this report as Table 1 on page 60. Data did not support earlier concerns over conflict between professionalism and organizational commitment. This, then, is another in the growing number of studies that indicate a professional employee can be high in both professionalism and organizational commitment, if the organizational climate is supportive of the employee's professional responsibilities.

About a year after completion of the data collection for this study, Norris and Niebuhr gathered information about those individuals who had responded, to determine which ones had remained with the firm and which ones had subsequently left. They found that those who had not left were significantly ($p < 0.05$) higher in both organizational commitment and professional commitment than those who had left.

Discussion

As with several earlier studies, Norris and Niebuhr used a small sample of professional accountants from a single public accounting firm, which makes the results difficult to use for the purpose of making generalizations regarding other

firms and other working environments. In fact, the authors themselves indicate the following warning with regard to their findings: "Quite different results might be obtained among groups of non-certified accountants and accountants engaged in private organizations."⁷³

Norris and Niebuhr did, however, strengthen their study through the followup collection of actual turnover information. Most studies which include turnover information at all use some measure of turnover intent as a surrogate for actual turnover, since most research designs do not permit later identification of those persons who have and have not left the organization. In hindsight, one might wonder why Norris and Niebuhr did not include both of these measures. If they had, the study would also have provided needed information about the true relationship between turnover intent and actual turnover.

Aranya and Ferris [1984]

Aranya and Ferris brought OPC research squarely into the U.S. accounting arena with their 1984 large-sample study of U.S. Certified Public Accountants (CPAs) and Canadian Chartered Accountants (CAs).⁷⁴ Their study suggested that:

⁷³ Norris and Niebuhr, *op. cit.*, p. 58.

⁷⁴ Aranya and Ferris, *op. cit.*

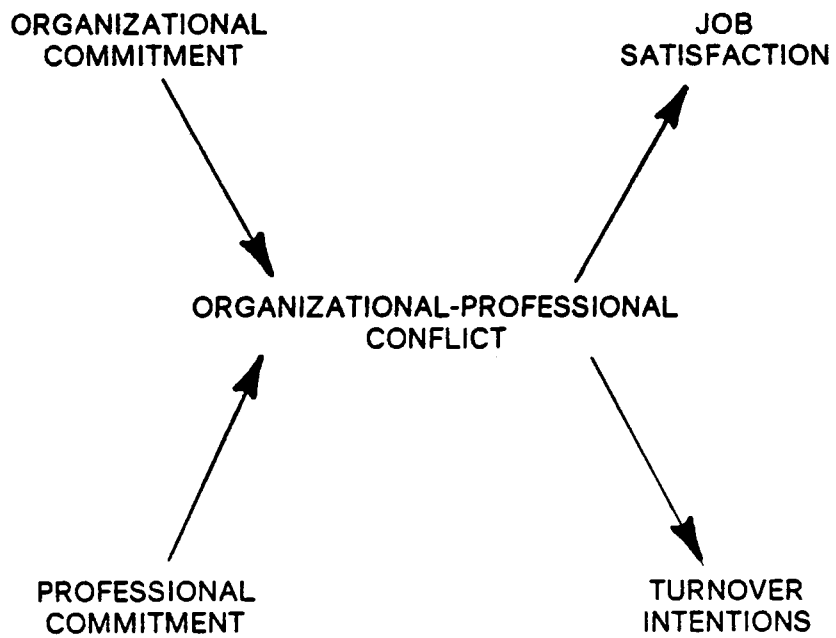
- Organizational-professional conflict (OPC) may be a significant predictor of turnover intentions among professional accountants,
- The multiple linear regression family of hypothesis testing and modeling procedures is appropriate in looking at these kinds of variables, and
- Organizational commitment and professional commitment are variables that should be considered in OPC studies within the professions related to accounting.

In addition to the important points cited above, Aranya and Ferris opened the door toward similar testing in the field of management accounting by tentatively concluding, based on their observations, that OPC is significantly lower in professional organizations (such as CPA firms) than in nonprofessional organizations (such as industrial firms).⁷⁵ Their sample consisted primarily of CPA firm professionals. Aranya and Ferris found higher levels of OPC in those accountants employed by nonprofessional organizations than in those employed in CPA firms. This finding agrees with their expectations based on earlier studies.⁷⁶

⁷⁵ Ibid., p.9.

⁷⁶ For example, Aranya, Lachman, and Amernic [1982], op. cit.

Table 2. Aranya and Ferris's [1984] OPC Model.



Research Model and Hypotheses

The fundamental model posited by Aranya and Ferris is shown in Table 2 on page 64. Although they did not formally apply a causal modeling approach, such as path analysis in their study, it is clear that Aranya and Ferris intuitively visualized the hypothesized relationships as having a particular direction of influence associated with them. More specifically, their arrow diagram, which has the appearance of a path model, shows OPC being influenced by organizational commitment (OC) and professional commitment (PC). OPC, in turn, is depicted as impinging upon job satisfaction and turnover intent.

Aranya and Ferris proposed the following hypotheses for their study, which derive, at least in part, from the model depicted in Table 2 on page 64.

- H1: The organizational and professional commitments of accountants working in professional organizations will tend to be higher than that of accountants employed in nonprofessional organizations.
- H2: The organizational-professional conflict (OPC) of accountants working in professional organizations will tend to be lower than that of accountants employed in nonprofessional organizations.
- H3: Within the context of professional organizations, the level of organizational and professional commitment will tend to be positively related to the level within the organization's hierarchy.

- H4: Within the context of professional organizations, the level of OPC will tend to be inversely related to the level in the organization's hierarchy.
- H6: OPC will tend to be inversely related to the job satisfaction of accountants.
- H7: OPC will tend to be positively related to the turnover intentions of accountants.

Subjects

The subjects of the Aranya and Ferris study consisted of 2,016 CPAs and CAs, including 657 partners, 285 managers, and 132 staff accountants, from major accounting firms. It may be noteworthy that their sample was heavily weighted in the direction of the firms' owner-managers, so their results may hold more validity with regard to this stratum than for the lower-level accountants in the firms.

Research Methodology

Aranya and Ferris used questionnaires for their information-gathering instrument. The key variables of organizational commitment and professional commitment were adapted from a 15-item scale that had been developed and

validated by Porter, et al. [1974]⁷⁷, thereby obviating revalidation in the 1984 study. The seven-point Likert-type response scale used by Aranya and Ferris has been used consistently throughout the recent literature in which relationships among these variables have been tested. This scale is discussed in more detail later in this chapter.

OPC was measured by asking the respondents to respond on a seven-point Likert-type scale to the statement: "The type and structure of my employment framework give me the opportunity to fully express myself as a professional." This item is designed to capture the degree to which the professional employee feels that the organization is imposing requirements or conditions that are perceived as violating the employee's professional standards or duties.

Turnover intent was measured by asking, "How likely is it that you will actively look for a different organization to work for in the next year?" The seven-point response scale ranged from *highly likely* to *highly unlikely*. Job satisfaction was measured using questions based on Porter's Need Satisfaction Questionnaire.

⁷⁷ Porter, L., R. Steers, R. Mowday, and P. Boulian, "Organizational Commitment, Job Satisfaction and Turnover Among Psychiatric Technicians," *Journal of Applied Psychology*, October 1974, pp. 603-609.

Analysis and Results

Aranya and Ferris used multiple linear regression and the Pearson product-moment correlation coefficient to measure the relationships among the research variables. All of their hypotheses except H3 were strongly supported by the data. In particular, H7 affirmed that OPC and turnover intentions are positively related, and H6 affirmed that OPC and job satisfaction are inversely related.

Other Comments

The Aranya and Ferris paper represents an important navigation point for those who are interested in the professionalization movement within accounting-related occupations as well as turnover and job satisfaction, which appear to be affected by OPC. It is likely that other researchers will undertake to replicate, refine, and extend the results of the Aranya and Ferris study.

Because the sample in the Aranya and Ferris study is heavily weighted toward large public accounting firms, it tells us little about OPC and its antecedents and consequences in the nonprofessional, bureaucratic setting. They do have enough non-public accounting CPAs to suggest that that OPC and its organizational consequences may be more pronounced among professional employees in *nonprofessional* settings than in professional organizations such as public accounting firms. Further work will be needed in this area.

Harrell, Chewning, and Taylor [1986]

Questionnaires patterned after those of Aranya and Ferris [1984], but with some added predictor variables (discussed below), were completed by 59 internal auditors employed by three banks in a medium-sized southeastern city.

Harrell, Chewning, and Taylor used the model supported by Aranya and Ferris [1984] but added the following variables: Supervisory Status and Tenure as predictors of Organizational Commitment, and Institute of Internal Auditors Membership as a predictor of Professional Commitment.⁷⁸ It had been suggested by earlier studies of Lee [1971], Steers [1977], Hrebiniak and Alutto [1972], and Angle and Perry [1981], that one's length of service in an organization and level within the hierarchy may impact the employee's organizational commitment. Similarly, professional association membership was viewed as logically related to the individual's professional commitment.

The first five hypotheses of Harrell et. al., are notably similar to those of Aranya and Ferris [1984], as well as to those of Aranya, Pollock, and Amernic [1981] and Norris and Niebuhr [1984]. They are as follows:

⁷⁸ Adrian Harrell, Eugene Chewning, and Martin Taylor, "Organizational-Professional Conflict and the Job Satisfaction and Turnover Intentions of Internal Auditors," *Auditing: A Journal of Practice and Theory*, Spring 1986, pp. 109-121.

- H1: An individual's level of OPC is directly and positively related to the individual's turnover intentions.
- H2: An individual's level of OPC is directly and negatively related to the individual's level of job satisfaction.
- H3: An individual's level of professional commitment is directly and negatively related to the individual's level of OPC.
- H4: An individual's level of OPC is directly and positively related to the individual's level of OPC.
- H5: An individual's levels of organizational commitment and professional commitment interact in relation to the individual's level of OPC.

The three remaining hypotheses of Harrell et. al. [1986] are as follows:

- H6: An individual's membership in the Institute of Internal Auditors is directly and positively related to the individual's level of professional commitment.
- H7: An individual's status as a supervisor is directly and positively related to the individual's level of organizational commitment.
- H8: An individual's tenure with his employing organization is directly and positively related to the individual's level of organizational commitment.

The hypothesized relationships among the variables were causal, and path analysis was used to statistically analyze the resulting data. Path analysis is an application of multiple linear regression analysis in which the hypothesized re-

relationships are directional (causal), meaning that such directionality is consistent with the researchers' model. Thus, even though causality cannot be proven through the use of path analysis, if the a priori model of the researcher contains causal linkages, then the resulting analysis can at least demonstrate that the results are or are not consistent with the the model's predictions. Harrell, Chewning, and Taylor indicate that "reliance on logical relationships and previous research is required. Hence the reliance of this study upon the research of Aranya and Ferris [1984]."⁷⁹ Path analysis will be described more fully in the next chapter, as it is an analysis method adopted for use in the present study, which will similarly rely upon the findings of Harrell et al. [1986] as well as those of Aranya and Ferris [1984].

The measurement scales used by Harrell et. al. were deliberately patterned after those used by Aranya and Ferris [1984], who had, in turn used previously validated questionnaires to avoid the necessity for further validation, as well as to add consistency and comparability to the developing chain of OPC research in accounting-related professions. An exception exists in that Harrell et al. used a simple, single-item scale in the measurement of job satisfaction in lieu of the complex hierarchical scale of Porter et al. that was adopted by Aranya and Ferris.⁸⁰

⁷⁹ Harrell, Chewning, and Taylor, 1986, p. 115.

⁸⁰ This simplified approach for measuting job satisfaction has been adopted for the present study as well, but with the other variables used by Aranya and Ferris (organizational commitment, professional commitment, OPC, and turnover intent) remaining substantially intact among the three studies.

All but two of Harrell et al.'s hypotheses were supported by the data with p-values less than 0.01. Relationships in terms of standardized beta weights were not significant in the cases of H1 and H8, although the regression models themselves were significant at the 0.01 level.⁸¹

Interestingly, Harrell et al. did not find a direct causal linkage between turnover intent and OPC (H1). However, the relationship between turnover intent and tenure was strong and in the predicted (inverse) direction, which may have tended to overshadow the weaker expected relationship. Also, OPC was a strong (inverse) predictor of job satisfaction. Job satisfaction inversely impacted turnover intent; thus an indirect relationship is suggested between OPC and turnover intentions. Since all of the subjects were employees of only three banks in a single geographic area, it would be a useful extension of the Harrell et al. study to extend it specifically to internal auditors in other areas and lines of business, in case industry-specific or location-specific organizational variables are significantly impacting the results. It may also be that the relatively small sample size tends to shadow effects that may be present but are not clearly significant.

The Harrell, Chewning, and Taylor [1986] study is important in that it applied path analysis to OPC research in an accounting-related profession without redoing the fundamentally sound regression methodology base affirmed by Aranya

⁸¹ Harrell, Chewning, and Taylor, 1986, p. 115.

and Ferris [1984]. Also, its other important hypotheses were well supported by the data.

Summary

As the reader has observed, the literature has begun to focus on the variables of interest in the present study, although not in the management accounting environment. Professionalism, the professionalization of various occupations, OPC, organizational and professional commitment, job satisfaction, and turnover intentions are shown to be important in their own right and to have interesting and potentially important interrelationships. The need is clear for research dealing with these variables in the emerging profession of management accounting. Thus, the literature supports both the need for, and the methodology chosen, for the current study of OPC in management accountants.

Chapter 3

HYPOTHESIS DEVELOPMENT AND RESEARCH METHODOLOGY

Introduction

The model and resulting hypotheses, relating organizational-professional conflict to its suggested antecedent and consequent variables for management accountants, are described in the first sections of this chapter.

Following the model and hypothesis development, the researcher describes the design for collecting data. This includes the development of the questionnaire, the the selection of an appropriate group of subjects to whom the questionnaire would be administered, and measures taken to enhance the willingness of the

subjects to participate in the study. The final major section of this chapter is a description of the statistical procedures selected for analysis of the data.

The Organizational-Professional Conflict Model

The set of expected relationships that compose the research model are described in this section of the chapter. First, the relationships involving expected antecedents of OPC are presented, followed by the expected consequents of OPC.

Antecedents of OPC

Previous studies lend support to the notion that organizational-professional conflict (OPC) is affected by an individual's organizational commitment and professional commitment [Harrell, Chewning, and Taylor, 1986; Aranya and Ferris, 1984]. Some studies have also suggested that OPC may vary inversely with the professional employee's tenure (length of service) in the organization [Harrell, Chewning, and Taylor, 1986; Aranya and Ferris, 1984; Sorensen and Sorensen, 1974].

Organizational commitment may be expected to be directly and positively affected by the employee's level in the hierarchy of the organization as well as by

the employee's tenure with the organization [Harrell, Chewning, and Taylor, 1986].

Self-Supervisor Conflict Regarding Professionalization

The literature has suggested that professional employees in nonprofessional organizations (such as industry and government) tend to experience higher levels of OPC than those professionals employed by professional firms (such as architectural firms, law firms, and CPA firms) [Aranya and Ferris, 1984]. Other studies have looked into various aspects of organizational climate that may be related to role conflicts [Senatra, 1980] and the relationship between professionalism and organizational commitment [Norris and Niebuhr, 1983]. These studies, when taken together, point to the idea that professionals tend to experience higher levels of organizational commitment and lower levels of OPC when their organizations recognize their professional status and allow, even encourage, professional activities such as meetings with fellow professionals and continuing professional education. Conversely, they suggest that where a professional's employer makes little or no allowance for the employee's professionalism, effectively treating the professional as a nonprofessional subordinate, that employee is likely to experience low organizational commitment and a high level of OPC.

Table 3. Proposed Fourfold Typology for OPC and Professionalism

		Accountant's Self-Image As a Professional	
		Nonprofessional Employee	Professional Employee
Perceived Image in the Eyes of the Accountant's Superiors	Professional Employee	Quadrant II Moderate OPC	Quadrant I Low OPC
	Nonprofessional Employee	Quadrant III Moderate OPC	Quadrant IV High OPC

Logically, if such a problem exists for professional employees, it would be magnified in cases where employee are strongly committed to their profession and its standards. Because management accounting is an emerging profession, it is quite likely that the range of professional commitment among management accountants may be much broader than in long-established professions, such as medicine, law, and the ministry. The highest levels of OPC, then, may be expected to coincide with a situation in which the employee considers management accounting to be fully professionalized and the employer's superiors do not think of management accounting as a profession.

Based on the preceding arguments, a fourfold typology was developed, which is represented in Table 3 on page 77. The four types of situations are depicted by the four quadrants shown in the model, with quadrant I being the one in which the highest levels of OPC would be expected, and with quadrant IV being expected to contain the lowest levels of OPC.

If the above model, relating OPC to the interaction of the accountant's and the supervisor's views of management accounting as a profession, is valid, then it points to a previously unused variable that may be uniquely important in explaining or predicting OPC levels where members of an emerging profession are employed in bureaucratic organizations. This variable will be termed self-supervisor conflict, abbreviated SSSCON. It is predicted that SSSCON will be directly and positively associated with OPC, and directly and negatively associated with organizational commitment.

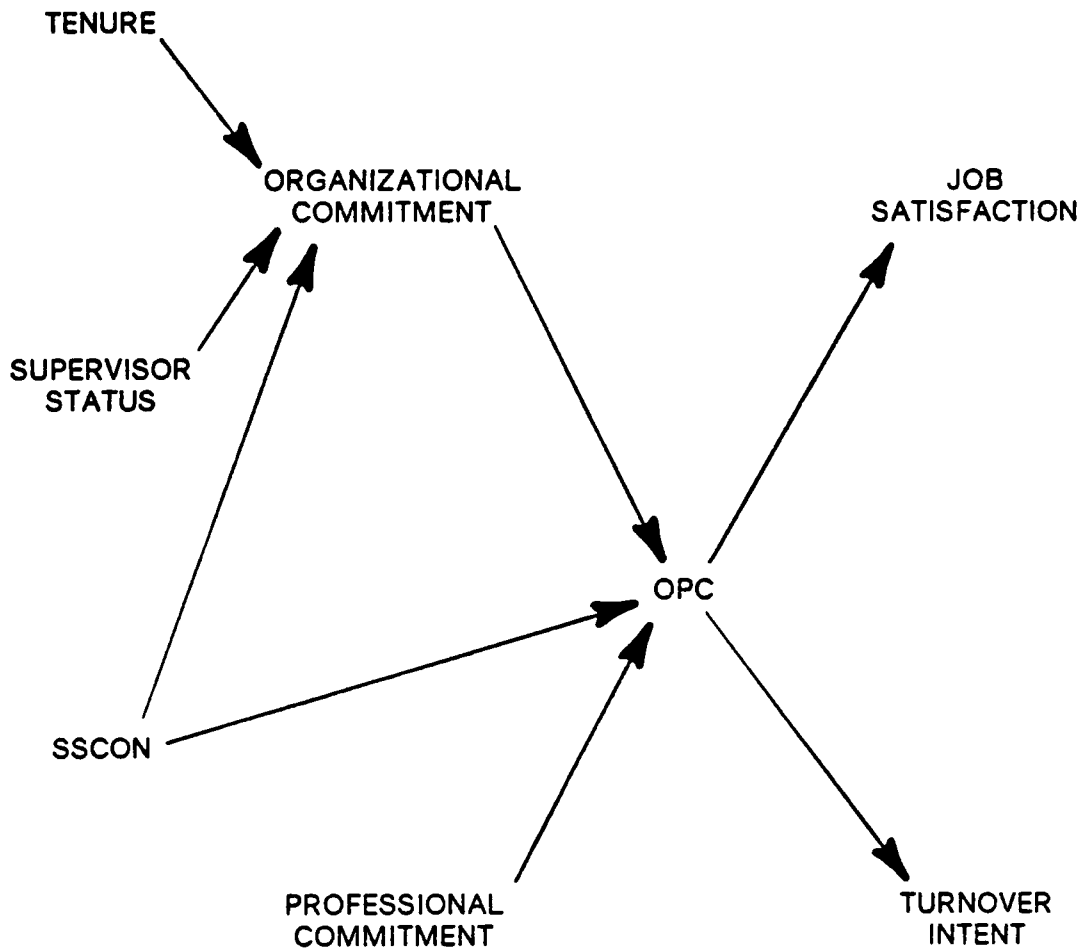
Consequences of OPC

Various studies have linked OPC with the tendency of professional employees to leave their organizations. This tendency has been referred to as migration tendency, propensity to leave, turnover tendency, and turnover intentions. Here, it will be referred to as turnover intent. The usual, though often unstated, reason for including turnover intent rather than actual turnover in the model is that actual turnover is very difficult, if not impossible, to measure, except by means of a longitudinal study. Therefore, turnover intent is used as a surrogate for actual turnover. Turnover intent is expected to be directly and positively influenced by OPC.

Job satisfaction is the other variable often hypothesized to be affected by OPC. In early studies, researchers assumed that job satisfaction directly impinged upon turnover intent, but studies have not shown this to be the case.

One of the major difficulties of dealing with job satisfaction is that there has been an almost total lack of uniformity regarding both its meaning and its measurement. In some studies one will find that job satisfaction was taken to mean a measure of the extent to which the job satisfies the specific levels of Porter's [1961] hierarchy of needs. Some take job satisfaction to mean satisfaction with some particular aspect of the job, such as salary or quality of supervision. Although such information is certainly interesting and may be useful in the context of some research models, the approach adopted for the present study is similar

Table 4. Proposed OPC Path Model for Management Accountants



to that of Harrell, Chewning and Taylor [1986, p. 114], in which a single item is used, in which the employees are asked for an overall indication of their level of satisfaction with their jobs. Job satisfaction is expected to be directly and negatively associated with OPC.

Proposed OPC Model for Management Accountants

Based on the foregoing discussion of OPC and its suggested antecedent and consequent variables, the proposed OPC model for management accountants is presented in Table 4 on page 80. The arrows indicate the hypothesized directions of influence between various pairs of variables where a significant relationship is expected. The hypotheses of the study, which are presented in the following section, are derived from this proposed model.

Hypotheses

This section presents the hypotheses of the study, which have been derived from the proposed OPC model for management accountants, which was presented and discussed in the preceding section.

- H1(a): There are management accountants, including CMAs, whose self-concept as professionals is not accompanied by the perception of a similar

concept in the eyes of their superiors who shape the priorities of the organization.

- H1(b): Conflict between self-image and perceived superior-image is directly and positively associated with organizational-professional conflict, and directly and negatively associated with organizational commitment.
- H2: Within the context of management accounting, the level of organizational and professional commitment will tend to be positively related to the level within the organization's hierarchy (supervisory status).
- H3: Within the context of management accounting, the level of OPC will tend to be inversely related to level in the organization's hierarchy (supervisory status).
- H4: OPC will tend to be inversely related to the job satisfaction of management accountants.
- H5: OPC will tend to be positively related to the turnover intentions of management accountants.
- H6: Tenure with the organization will be positively related to organizational commitment.
- H7: Tenure with the organization will be negatively related to both OPC and professional commitment.

The Questionnaire

The research instrument, which was eight pages in length, was designed with the goals of (1) taking advantage of prior studies, in which similar variables were measured, and (2) minimizing its length and complexity, as a means of gaining a satisfactory response rate from participants. Other considerations which are believed to have enhanced the response rate are discussed in a later section of this chapter. The questionnaire and transmittal letter are included herein in an appendix which follows the body and bibliography.

The first section of the questionnaire gathered the demographic and background information about the participants. Although variables such as age, sex, professional certification, and public accounting experience are not included in any of the hypotheses, it is useful to obtain such information, in case it turns out to be a confounding variable which tends to mask one or more of the effects of interest. When such a situation occurs, detecting and controlling for confounding variables can potentially increase the likelihood of detecting significant relationships that actually exist. Numerous prior studies reported null hypotheses that could not be rejected in spite of the fact that the relationships were in the hypothesized direction. One can only surmise that the effect was present but was masked by confounding variables that were not controlled for.

The paragraphs that follow describe the measurement scales used in measuring the variables of interest.

Organizational commitment and professional commitment. The organizational commitment scale of Porter, Steers, Mowday, and Boulian [1974] was used for this measurement. This is a 15-item scale which focuses on the employee's willingness to exert extra effort for the organization and the employee's strength of association with the goals of the organization. The individual items are statements, and the respondent expresses agreement or disagreement on a seven-point Likert-type scale, verbally anchored at the extremes with "strongly disagree" and "strongly agree." An example is as follows: "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful". This scale has been used in numerous other studies, including Aranya and Ferris [1984] and Harrell, Chewing, and Taylor [1986]. The score is determined by averaging the responses to the various items, taking into account that some of the items are reversed, as a means of controlling response bias.

Professional commitment is measured on a 15-item scale identical to the organizational commitment scale, except that the word *organization* is replaced with the word *profession*. This scale has also been used in the studies cited above, as their measure of professional commitment.

Tenure and Supervisor Status

Tenure was measured by asking the respondent, "How long have you been associated with your present organization? ___Years." Supervisor status is a surrogate for "level within the organization," which was found to be related to organizational commitment in studies of public accounting firms. Since all of the large public accounting firms use similar titles to depict the levels of professional staff members, these titles could be used for this variable. Among management accountants, however, standard titles are less common; therefore, another means had to be derived for determining the accountant's level in the organization. The respondents were asked "How many individuals do you supervise in your present position." In order to achieve a more linear relationship, the base-two logarithm of the taken as the value of this variable.

Self-Supervisor Conflict

Self-supervisor conflict (about the professional status of management accounting), abbreviated SSCON, was measured by asking the respondents (1) whether they believe that management accounting has become a profession and (2) whether their supervisors believe that management accounting has become a profession, then subtracting response (2) from response (1).

OPC, Job Satisfaction, and Turnover Intent

OPC was assessed by asking the accountant to respond to the statement “The type and structure of my employment framework give me the opportunity to fully express myself as a professional.” This item was taken from the Aranya and Ferris [1984] study. Job satisfaction was measured by the statement “I am extremely glad I chose this organization to work for.” Turnover intent was assessed by the statement, “It is highly likely that I will actively seek another organization to work for within the next year.” This measure was also used by Aranya and Ferris [1984], and numerous studies have use similar, although not identical, measures for turnover intent.

Subjects

The survey questionnaire was mailed to a random sample of 500 of the approximately 33,000 members of the National Association of Accountants whose work organizations were classified as *manufacturing*. This was done in order to maximize the number of persons sampled who would likely be in management accounting positions, as opposed to other NAA members, many of whom are not currently employed as management accountants. In addition to this sample, a sample of 100 of the approximately 5,000 holders of the CMA Certificate were

also randomly selected.⁸² The two groups received questionnaires which were identical except that they were printed on paper of a different color for ease of sorting the responses.

The sample size was substantially larger than most of the OPC studies cited in Chapter 2, in which CPA firm professional staff members were the primary subjects. The reason for choosing a sample as large as 600 was twofold: (1) There would certainly be some members selected who are not currently employed as management accountants (some would be educators, managers, CPA firm practitioners, retirees). This would cause a reduction in the usable sample. And (2) Some of the earlier studies reported results that were not significant; sometimes an increase in the sample size increases the likelihood that significant effects will be detected. The response rates in similar mail-surveys involving accountants have averaged in the range of about 40 to 45 percent, which hopefully would produce a usable sample of approximately 200, after elimination of the non-management accountants.

⁸² The random selection of both samples was performed by the NAA, using its own computer program. The researcher did not have access to the computer program nor to the complete membership list for verification; however, the matter was discussed with a responsible NAA representative, and the researcher was reasonably assured that the computerized selection procedure did in fact produce random samples from the designated populations.

Non-Response Bias and Measures Taken to Enhance the Survey Response

Mail-survey research, in general, has several dangers associated with it. The most obvious is the potential for nonresponse bias. That is, there is no guarantee that those who did not respond to the survey, had they chosen to respond, would have provided responses similar to those who did respond. The following measures will be employed to help control non-response bias: A record will be maintained of the date each response is received, in light of the traditional, but unproven, belief that late responses most closely resemble nonresponses. After all responses were in, the researcher will perform correlation and regression analyses between the length of response time and each of the important variables in the study.

Substantial effort has been devoted to achieving a response rate that would be large enough to minimize the risk of non-response bias. In this regard, the following steps have been taken: Questionnaires were professionally printed on light blue and light grey stock in a very attractive way. Each questionnaire was accompanied by an individually typed letter which contained the recipient's name and address and was personally signed in blue-black ink by the researcher. The letter was made to look as personal as possible, and it contained wording that referred to the importance of each participant's response.

The cover letter clearly indicated that all information provided by participants would be held in strict confidence.

Each questionnaire was accompanied by a self-addressed postage-paid return envelope. A commemorative first-class stamp was affixed to the outside envelope for each questionnaire. Its purpose was to avoid the appearance of bulk-rate mail, which the researcher was entitled to use, but chose not to do so in order to gain a maximum response.

Another danger inherent in mail-survey research is that the recipient might misinterpret an item and thus provide erroneous information. This possibility was dealt with in two ways: (1) To the extent possible, the researcher used questionnaire items and scales that had been previously used and validated by other researchers. (2) In an informal pre-test procedure, the researcher had the instrument reviewed by several individuals who are knowledgeable in this area of research, as well as several others who are not, and the feedback from all of these individuals indicated that all questions and instructions were clear, reasonable, and understandable.

A final danger of mail surveys is the lack of control over who actually completes the questionnaire. It has been suggested that some executives ask an assistant or secretary to complete them, which would likely bias the results. The researcher considers that the best available control for this eventuality is the total anonymity of the respondents. Since no one will ever know which subjects did

and did not return their questionnaires, one who has no interest in participating in the study would be far more likely to throw the instrument away than to ask an assistant to complete it.

Statistical Analysis Procedures

The primary statistical tools for this study will be Pearson product-moment correlation analysis and path analysis. Correlation analysis provides, for any pair of variables, a measure of “the extent to which performances on two variables agree with one another.”⁸³ Path analysis decomposes the observed correlations into their direct and indirect effects, making it particularly useful when the model specifies a direction of causality between some or all of the variables of interest. Path analysis, and the justification for its use, are explained in much more detail in a section which follows.

In addition to correlation analysis and path analysis, analysis of variance will be used in testing Hypothesis 1, to determine whether the fourfold typology that is hypothesized to impact OPC and organizational commitment actually produces the expected effect. A multiple comparison procedure will be applied if signif-

⁸³ Burroughs, G. E. R., *Design and Analysis in Educational Research*, Educational Monograph No. 8, University of Birmingham School of Education, 1975, p. 72.

icant differences are found, to control for the possibility of the effect being a random occurrence.

Path Analysis

One of the first caveats heard by any student of statistics is that, ordinarily, correlation between any pair of variables does not imply that a change observed in one of the variables *causes* the change observed in the second variable. This warning is particularly appropriate in non-laboratory research, that is, where neither of the variables is controlled by the researcher. In such cases, either of the two variables could theoretically be causing the observed change in the other, or, there could be some additional, unmeasured variable, that is causing related changes in both of the measured variables.

Clearly, it is important for researchers to avoid unjustified conclusions regarding causal relationships among variables of interest. However, it is also important, and perhaps even more important that researchers attempt to distinguish between those situations in which conclusions about causality cannot be justified and those in which it is fitting and proper to conclude that one observed change is causing another.

How does one go about making such a distinction? The two extremes are fairly easy to define. On the one hand, some relationships are observed with little

or no knowledge of whether or not they are causally related. Much-publicized, there is apparently some relationship between stock-market prices and the hems of women's skirts. Generally, however, it is not believed that either of these is causing the other. A more likely explanation might be that, when people feel generally good about the state of the economy and its future, both of these quantities tend to rise, whereas, in times of gloom and doom, both have a tendency to fall.

On the other hand, in the laboratory setting, researchers can control one or more independent variables, keep other variables relatively constant, and observe the effect on the dependent variable of interest. Under such controlled conditions, there is little doubt that conclusions about causality are often justified.

In the vast middle ground between these two extremes, researchers obviously must be very cautious in dealing with apparent cause-and-effect relationships; however, in a growing number of disciplines, such conclusions are not being avoided. A branch of statistics, known as causal modeling, is generating welcome ideas and procedures for use in those disciplines, including the social sciences, where observed but uncontrolled relationships appear to have a causal basis.

Asher states that causal modeling is beneficial as a heuristic device as well as an analytic technique:

Thinking causally about a problem and constructing an arrow diagram that reflects causal processes may often facilitate the clearer statement of hypotheses and the generation of additional insights into the problem at hand.⁸⁴

Pedhazur [1982] agrees with Asher:

In the work of scientists, even in the work of those who are strongly opposed to the use of the term *causation*, one encounters the frequent use of terms that indicate or imply causal thinking. When behavioral scientists, for example, speak about the effects of child-rearing practices on the development of certain personality patterns, or the effect of reinforcement on subsequent behavior, or the influence of attitudes on perception, there is an implication of causation. Similarly, it has been noted (Alker, 1966) that while political scientists are reluctant to use causal language, they employ concepts (influence, power, decision making) that imply causal processes.⁸⁵

Pedhazur concludes, "In sum, scientists, qua scientists, seem to have a need to resort to causal frameworks, even though on philosophical grounds they may have reservations about the concept of causation."⁸⁶

Path analysis, a form of causal modeling which builds on the principles of linear regression analysis, is used in the present study for testing the strength of the hypothesized relationships among the variables of interest. Path analysis has been applied in previous accounting research by Ferris [1977], Aranya, Lachman and Amernic [1982], and Harrell, Chewning and Taylor [1986].

⁸⁴ Asher, Herbert B., *Causal Modeling, 2nd Edition*, Beverly Hills: Sage Publications, Inc., 1983, p. 8.

⁸⁵ Pedhazur, Elazar J., *Multiple Regression in Behavioral Research (2nd edition)*, New York: Holt, Rinehart and Winston, 1982, pp. 577-578.

⁸⁶ Ibid.

In path analysis, standardized beta weights from the regression analysis become path coefficients in the chain of identifiable causal factors, which act alone and in combination with other factors to impinge upon the dependent variable(s) of interest. A significant (using $\alpha = 0.05$) standardized beta associated with one of the independent variables, when effects of other independent variables are controlled for, indicates a direct relationship between that independent variable and the dependent variable.

Path analysis does not determine the direction of causality. The direction is specified by the researcher and should be based on logical and theoretical foundations. The stronger the theoretical foundation, hopefully supported by results from previous studies, the more justifiable is the specification of causal directions by the researcher. Of this, Asher asserts:

Probably the best advice that one could offer to someone contemplating the use of causal modeling is to begin with a model in which one has substantial confidence. Presumably this confidence results from some theoretical or substantive reasoning about the linkages between the variables of interest.⁸⁷

The assumptions needed for application of path analysis are essentially the same as for multiple linear regression, to which it is closely related. The model is assumed to be properly specified, the variables are assumed to be accurately measured, and the residuals are assumed to have a zero mean, constant variance, and an absence of autocorrelation. There is usually no guarantee that all of the assumptions are justified. However, as with regression analysis, the procedures

⁸⁷ Asher, op. cit., p. 10.

are said to be sufficiently robust to withstand the violations normally encountered. According to Bohrnstedt and Carter,

We feel there is ample evidence to suggest that regression analysis is adequately robust except in the presence of measurement and specification error. It has been shown that the problems of heteroscedasticity and nonnormality do not, in fact, generally cause serious distortions.⁸⁸

With respect to measurement error, Asher says, "The assumption that the independent variables are measured without error is unrealistic; but it is violated regularly by anyone who uses regression analysis."⁸⁹

Given the heuristic benefits of "causal thinking" and the assertion that the underlying assumptions are in line with the popular method of multiple linear regression, it is considered appropriate to continue and extend the application of path analysis in studies of the accounting-related professions. Although path analysis was first developed and applied in agricultural research, it was quickly adapted to research in the social sciences, especially sociology, in which organizations and professions are also studied.

A benefit of path analysis over the classical regression/correlation methodologies is that path analysis provides an analysis of both direct and indirect causal linkages contained in the total correlation. In Asher's words, "Any correlation between two variables can be decomposed into a sum of simple and compound paths, and a compound path is equal to the product of the simple paths com-

⁸⁸ Bohrnstedt, G. W., and T. M. Carter, "Robustness in Regression Analysis," in H. L. Costner (ed.), *Sociological Methodology*, San Francisco: Jossey-Bass, 1971, p. 142.

⁸⁹ Asher, op. cit., p. 28.

prising it.”⁹⁰ In the early years of its application, the mathematics involved in decomposition of correlations was tedious, particularly with respect to unraveling the indirect effects. This might explain why path analysis was often foregone in favor of less cumbersome mathematical models. In recent years, however, computer programs have excised most of the tedium from path analysis, which seems to coincide with its recent increase in popularity among the social sciences.

The computer program selected for performing the analytic decomposition of the product-moment correlations is known as GEMINI. This program was developed by Wolfle and Ethington at Virginia Polytechnic Institute and State University.⁹¹

The first major study in accounting which used path analysis as the primary analysis tool was Aranya, Lachman, and Amernic’s 1982 paper, entitled “Accountants’ Job Satisfaction: A Path Analysis,”⁹² which was discussed in Chapter 2. The notation generally used in path analysis consists of an arrow diagram, the direction of the arrows depicting the hypothesized direction of the causal influences among the variables in the model. Such a diagram, depicting the anticipated causal relationships among the variables of interest, is presented in Table 4 on page 80.

⁹⁰ Asher, *op. cit.*, p. 33.

⁹¹ Wolfle, Lee M., and Corinna A. Ethington, “GEMINI: A Program for Analysis of Structural Equations with Standard Errors of Indirect Effects,” *Behavior Research Methods, Instruments, and Computers*, Vol. 17, 1985, pp. 581-584.

⁹² *Accounting, Organizations and Society*, Vol. 7, 1982, pp. 201-215.

There is no guarantee that the causal model under analysis is properly specified, nor that all of the variables are accurately measured. However, the benefits of causal thinking are considered to make the path model an appropriate, although tentative, supplement to the reporting of correlations among the variables. It is fortunate that previous research has provided a substantial theoretical base for the selection of (1) the variables to be included, (2) the direction of influence among the variables, and the causal modeling methodology which is becoming widely used and accepted in the literature of the social sciences.

Concluding Summary

The literature has generously provided a well defined set of hypothesized relationships among OPC and its antecedents and consequents. However, since these relationships have not previously been tested in the management accounting context, it would not be surprising if differences are found which lead in the direction of a different model for management accountants than for public accounting practitioners. The result, it is hoped, will be a clearer understanding of where management accounting now stands in its quest for professionalization, as well as clue about the interrelationships among the personal and organizational variables included in this study.

Chapter 4

ANALYSIS OF RESULTS

Introduction

The results of the survey research that was carried out according to the research design described in Chapter 3 are reported in this chapter.

To provide the reader with an awareness of the nature and numbers of the participants in the study, a descriptive summary of the respondents in terms of some of the demographic information captured by the survey instrument is presented in the first section that follows. The second section contains a report on the specific hypotheses developed prior to the collection of the data and indications of the degree to which the data do and do not support the hypotheses.

In the third section of the chapter, the writer expands the analysis of the results beyond the hypothesis tests in two specific ways:

1. An exploration of the predicted interaction between the management accountant's own perception of professionalism and that which the management accountant perceives in his or her supervisor or rating official.
2. Path analysis procedures are employed, as explained in Chapter 3, to graphically depict direct and indirect relationships between the key variables, the paths having been developed through series of multiple linear regression and correlation analyses.

An appendix, which follows the body of this paper, contains the multiple linear regression and correlation tables used for developing the path analyses.

Descriptive Summary of Survey Respondents

The survey instrument was mailed to 599 members of the National Association of Accountants (NAA), who were selected in the following manner: A sample of 500 was randomly selected⁹³ from that segment of the NAA's mem-

⁹³ The selections were made by the NAA's own random selection computer program, which the researcher did not have the opportunity to evaluate. However, no information has been noted to indicate nonrandomness of the sample, and the researcher was assured by a responsible representative of the NAA that the sample was randomly

bership whose membership record indicated a manufacturing work affiliation. An additional sample of 100 was randomly selected in a similar fashion from those members whose membership record indicated they are holders of the CMA certificate.

When the two samples were compared for duplications, only one member appeared in both samples. The duplicate was removed prior to mailing; therefore, the total number circularized was 599 instead of 600.

In addition to the 100 CMAs specifically selected, the general sample of 499 included, by chance, an unknown number of CMAs, of whom 14 responded to the questionnaire (as determined from information supplied by the participants themselves). These 14 brought the total number of CMA responses to 86, compared with 195 responses from non-CMAs, in the total of 281 responses (46.9 percent response rate). Table 5 on page 101 summarizes the demographic composition of the 281 respondents.

It should be noted that of the 281 participants, some 80 (28 percent) indicated that their current work field was other than management accounting. These 28 were removed from the sample prior to analyzing the data, in order that the responses used be limited to NAA members currently engaged in management accounting work. Therefore, it is the remaining 201 respondents, who indicated

selected from the current membership data base. In addition, in a relatively large sample, such as this one, it would be unlikely for a lack of randomness, should it exist, to introduce any important bias into the results.

Table 5. Summary of Participant Data

	<u>CMA Sample</u>	<u>General Sample</u>	<u>Combined Sample</u>
Questionnaires mailed	100	499	599
Number of replies received	62	219	281
Percentage response rate	62%	44%	47%

Current Occupations of Participants	Number	Percent of Sample	<u>Male</u>		<u>Female</u>	
			No.	%	No.	%
Management accounting	201	71.5	175	87	26	13
Public accounting	10	3.6	10	100	0	0
Internal auditing	6	2.1	6	100	0	0
Management Education	48	17.1	45	94	3	6
Government	5	1.8	5	100	0	0
Other	3	1.1	3	100	0	0
	8	2.8	6	75	2	25
Totals	281	100.0	250	89	31	11

current employment in management accounting, whose responses have been used in testing the hypotheses.

About one-fifth of the respondents omitted one or more items of information requested in the questionnaire. Most of the omitted items were demographic questions which do not affect the tests of hypotheses. Also, since each of these responses could be used in some if not all test procedures, the number of usable observations varied only slightly among the various statistical tests.

The results of the hypothesis tests are described in the following section of this chapter.

Results of Hypothesis Testing

This section of the chapter contains the results of the statistical tests performed on the eight hypotheses that were developed in the Chapter 3. For the convenience of the reader, each of the hypotheses will be restated, followed by a brief review of its development, before indicating the results of the tests that have been performed. For the interested reader, more detail on the development of the hypotheses is available in Chapter 3.

Hypothesis H1(a): There are management accountants whose self-concept as professionals is not accompanied by the perception of a similar concept in the eyes of their superiors who shape the priorities of their organizations.

This first hypothesis was developed around the concept that management accounting is an emerging profession. Within an emerging profession there may be individuals who are highly professional, others who are functioning as non-professional employees, and still others who fall somewhere on the continuum between these two extremes. In addition to the management accountants themselves, their supervisors may also be undergoing a transition, in which some recognize their management accountants as professionals and others do not. The question here is whether, for a substantial number of management accountants, these two views regarding the professional status of management accountants do not coincide. If, as it is hypothesized, there are numerous supervisors of management accountants who disagree with their accountants on this matter of professional status, then this disagreement itself might become an important variable in the study of other attributes, such as organizational-professional conflict (OPC), job satisfaction, turnover, and organizational and professional commitment.

Therefore, support for or rejection of this hypothesis would not be of substantial value in and of itself. Its value lies in that, if supported by the data, it legitimizes the more interesting and important hypotheses that follow.

Data for testing this hypothesis were gathered by asking, in separate sections of the questionnaire, (1) whether the accountant perceives that management accounting has attained the status of a profession (self-concept) and (2) whether the accountant's supervisor or rating official perceives that management accounting

has attained the status of a profession (supervisor concept). The two sets of responses could then be compared to determine the magnitude of the perceived disagreement between the management accountants and their supervisors.

On the seven-point Likert-type scale that was used in measuring the two perceptions of professional status, the mean on the self-concept scale was 5.547 for non-CMAs and 5.200 for CMAs. The mean on the supervisor-concept scale was 4.553 for non-CMAs and 4.636 for CMAs. This indicates that the average management accountant in the sample considers his own perception of the professional status of management accounting to be higher than that of his superior by nearly one full point on the 7-point scale.

This is simply an indication that this hypothesized variable exists, not an indication of its importance. Its importance begins to be seen in the examination of Hypothesis H2. Also, in a later section of this chapter, the writer looks specifically at the effect on OPC associated with the conflicting views of management accountants and their supervisors.

The mean excess of the self-concept over the supervisor concept (SSCON) is 1.041 for non-CMAs and 0.568 for the CMAs in the sample. Although this difference between CMAs and non-CMAs is moderately large, it may be due more to the more sophisticated organizations in which CMAs tend to work; therefore, the difference between CMAs and non-CMA's attitudes is not necessarily important.

Hypothesis H1(b): Conflict between self-image and perceived superior-image of professional status (SSCON) is positively associated with organizational-professional conflict (OPC).

Since Hypothesis H1 was supported, indicating that, on the average, management accountants perceive their profession as having a higher professional status than they believe their supervisors do, the magnitude of this perceived disagreement may be associated with other variables of interest. The first to be considered is organizational-professional conflict (OPC).

The reader will recall that OPC is a condition in which the goals, pressures, and/or standards of one's work organization are perceived by a professional employee to be in conflict with the goals, pressures, and/or standards of the employee's profession. This condition is thought to produce stress in the professional employee because one must choose courses of action which cannot be congruent with both of these sets of expectations.

Since the requirements of the organization are most directly represented by one's immediate supervisor, it was considered likely that conflict over professional status would be directly and positively associated with OPC.

This hypothesis was tested using the Pearson Product-Moment correlation coefficient. Under this procedure, the correlation between OPC and SSCON was positive 0.458 ($p = 0.0018$) for CMAs and 0.250 ($p = 0.0023$) for non-CMAs.

Therefore, Hypothesis H2 has been supported by the data, with particularly strong support in the case of CMAs.

Hypothesis H2: Within the context of management accounting, the level of organizational and professional commitment will tend to be positively related to the accountant's level (supervisor status) within the organization's hierarchy.

Inclusion of this hypothesis was not critical to the intent of the study, but the literature dealing with organizational and professional commitment has often included the level within the organization as a potential predictor of these two commitments, with inconsistent results. Including it in the present study might be beneficial to a reader who has a strong interest in the continuity of the succession of literature dealing with these questions. The 15-item scales used to measure organizational commitment and professional commitment have been used and validated by previous researchers, including the Aranya and Ferris [1984] OPC study involving CPAs and Chartered Accountants.

This hypothesis was examined by measuring the Pearson Product-Moment correlation coefficient between organizational commitment and professional commitment, respectively, and supervisor status, which was taken as the surrogate for the accountant's level in the hierarchy of the organization.

For non-CMAs, the correlation between supervisor status and organizational commitment is 0.220 ($p = 0.0065$), while the correlation between supervisor status

and professional commitment is not significant. For CMAs, neither of these correlations is significant. Thus, this hypothesis was not supported by the data.

It may be in order to provide a tentative, speculative, explanation for the lack among CMAs of significant correlation between their supervisor status and their commitment to their organization and profession. This would not be a particularly interesting result, except that it differs from the result for the non-CMA sample. Because it does differ, it may shed some light on the question of whether the CMA certificate signifies any of the *real* differences (as opposed to *symbolic* differences, such as the certification itself) between more professional and less professional management accountants.

If gaining power within an employer's organization were an important motivator for the accountant, then one would expect organizational commitment (directly) and job satisfaction (indirectly) to be positively affected by increased supervisory responsibilities. Conversely, if the accountant's motivation is one of *professional authority* rather than *organizational authority*, then one would not expect the accountant's authority over employees to be important in relation to other attitudinal variables. This tentative explanation appears to be consistent with the observed attitudinal variables. It will remain for future research to further verify or rebut this idea.

Hypothesis H3: Within the context of management accounting, the level of OPC will tend to be inversely related to the accountant's level (supervisory status) within the hierarchy of the organization.

The logic behind the development of this hypothesis would flow something like this: As one advances in an organization, one will tend to identify more closely with the goals of the organization and thus be less concerned with the goals or standards of one's profession, which may be in conflict with those of the organization. This question, like the one that precedes it, has appeared in previous studies (see Chapter 2 for more detail regarding previous studies in accounting involving these variables.)

The Pearson Product-Moment correlation coefficient was used to measure this relationship. The correlation coefficient between OPC and supervisor status for non-CMAs -0.192 ($p=0.0172$), and for CMAs is not significant. Thus, this hypothesis is supported, but for non-CMAs only.

Hypothesis H4: OPC will tend to be inversely related to the job satisfaction of management accountants.

This hypothesis and the one that follows it are central elements of the study. The OPC literature has been consistently concerned with the relationship, apparently a causal relationship, between OPC and job satisfaction, as well as the relationship between OPC and the worker's intent to seek other employment, referred to as turnover intent.

The Pearson Product-Moment correlation between OPC and job satisfaction was -0.386 ($p=0.0001$) for non-CMAs and -0.330 ($p=0.0287$) for CMAs. This indicates strong support for the hypothesis that OPC and job satisfaction tend to be inversely related in management accountants, and it is supported for both CMAs and non-CMAs. This result is consistent with the body of literature pointing to OPC as a factor to be considered in cases where professional employees experience poor job satisfaction.

Hypothesis H5: OPC will tend to be positively related to the turnover intentions of management accountants.

This is one of the most important hypothesized relationships examined in this study of management accountants. Turnover has important implications for the individual who changes jobs, which is obvious. Less obvious perhaps is the economic and morale impact on the organization that must replace the management accountant who has resigned or is contemplating such a move. Other studies have shown that the intent of employees to leave is generally an accurate predictor of actual turnover.

For the management accountants in this survey, OPC and turnover intent have a correlation coefficient of positive 0.398 ($p=0.0001$) for non-CMAs, and 0.480 ($p=0.0008$) for CMAs. This result indicates that the data strongly supports this hypothesis. That is, among management accountants, those who experience high levels of OPC are more likely to leave their organizations than those whose OPC levels are lower.

Hypothesis H6: Tenure with the organization will tend to be positively related to organizational commitment.

The length of time one has been with an organization has been thought to affect the level of commitment the employee feels toward that organization. Although this has proven true in earlier studies, including accountants in public accounting firms, one must note important differences in organizational structure between such firms and those organizations in which management accountants generally work. Thus, it was not by any means a foregone conclusion that management accountants would respond in a manner similar to that of CPA practitioners or other subjects of previous research.

The correlation coefficient between these two variables for management accountants was 0.194 ($p=0.0180$) for non-CMAs and 0.322 ($p=0.0354$) for CMAs. This result strongly supports the hypothesis that tenure and organizational commitment will tend to be positively associated for management accountants.

Hypothesis H7: Tenure with the organization will be negatively related to both OPC and professional commitment.

The correlation between tenure and OPC and the correlation between tenure and PC are not significant for either group. Thus, this hypothesis is not supported for either CMAs or non-CMAs. In management accounting, then, tenure with one's organization does not appear to have a strong relationship with OPC.

To summarize the results of the tests of hypotheses:

- A substantial number of management accountants perceive that they and their supervisors disagree regarding the degree to which management accounting has attained the status of a profession.
- This conflict between management accountants and their supervisors tends to be positively associated with OPC, which is, in turn, a predictor of job satisfaction (inverse) and turnover intent (direct).
- The supervisor status (number of employees supervised) of management accountants is not a significant predictor of their commitment to their organizations nor to their profession, but it is a significant predictor of OPC (inversely related).
- Tenure with the organization is a significant predictor of management accountants' organizational commitment, but it is not a significant predictor of their professional commitment nor of their OPC.

The section that follows takes a closer look at the relationship between self-supervisor conflict and OPC.

Quadrant Analysis for Professionalization and OPC

The researcher hypothesized *a-priori* (Hypothesis H2) that the degree to which management accountants do or do not hold similar views of the professional sta-

tus of management accounting will tend to impinge upon the level of OPC experienced by a management accountant.

This hypothesis was depicted graphically as a figure consisting of four quadrants, which is summarized in tabular form in Table 6 on page 113

The four quadrants were operationally defined as follows: for the management accountant's self-concept of management accounting and for the perceived supervisor-concept of management accounting, *high* was defined as "greater than the arithmetic mean," and *low* was defined as "less than the arithmetic mean." This was simplified computationally by standardizing the variables with a mean of zero, leading to positive values for responses above the arithmetic mean and negative values for responses below the arithmetic mean. This in turn led to quadrants being assigned to standardized observations as (+, +), (-, +), (-, -), and (+, -), for quadrants I, II, III, and IV, respectively.

The results of the analysis of the relationship between quadrants and OPC are as shown in Table 7 on page 114.

The ranking of the means is in full agreement with the hypothesized model relating OPC with Quadrant.

Duncan's and Tukey's multiple comparison tests were applied to determine whether the apparent ranking of the means was statistically significant. Both tests produced the same result: Quadrant I and Quadrant IV are significantly

Table 6. Professionalization Quadrants Defined

<u>Quadrant</u>	<u>Assessment of Management Accounting's Level of Professionalization</u>		<u>Predicted Ranking of OPC</u>
	<u>Accountant's Self-Assessment</u>	<u>Perceived Supervisor Assessment</u>	<u>1 (lowest) to 4 (highest)</u>
I	High	High	1 Lowest
II	Low	High	2 Moderate
III	Low	Low	3 Moderate
IV	High	Low	4 Highest

Table 7. Summary of Professionalization Quadrant Data

	Quadrant			
	I	II	III	IV
Mean				
CMA's	2.083	3.214	2.375*	4.455
NON-CMA's	2.825	3.240	3.485	3.800
COMBINED	2.696	3.231	3.268	3.941
Median	2	3	3	4
Number	69	39	41	51
Percent of Total	35%	19%	21%	25%
Rank (ascending) based on:				
Mean	1	2	3	4
Median	1	2.5	2.5	4
Rank, as hypothesized	Minimum	Moderate		Maximum

* There were only eight CMA's in Quadrant III, fewer than in any of the other quadrants. Because of the small number, the mean of this quadrant may be less reliable than the means of the other quadrants.

different at $\alpha = 0.05$. Quadrants II and III are not significantly different from each other nor from Quadrant I; however, they are both significantly lower than Quadrant IV. The smaller numbers of respondents in Quadrants II and III tend to make their differences less likely to be statistically significant. However their lack of significance is not considered important or surprising.

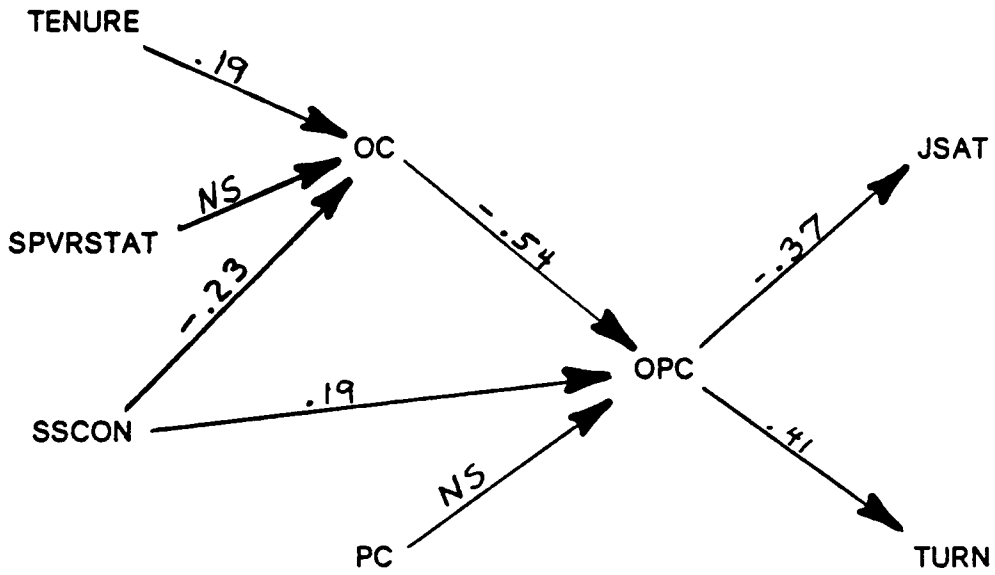
The interpretation of these results is that the model which relates quadrants with OPC is supported, at least with respect to the two extreme quadrants, I and IV. That is, Quadrant I is associated with the lowest levels of OPC, and Quadrant IV is associated with the highest levels of OPC. Stated another way, those management accountants who feel strongly that their occupation is a profession tend to experience significantly less OPC if their supervisors are in agreement with this view than they do if their supervisors disagree.

Path Analysis

Path analysis was employed to compute the direct and indirect causal linkages among the important variables in the study. As explained in Chapter 3, the path coefficients are taken as the standardized beta weights from the least-squares multiple linear regression equations.

The usefulness of these path coefficients results from the insight provided into the relative strength of the effect each of the causal variables has on the respective

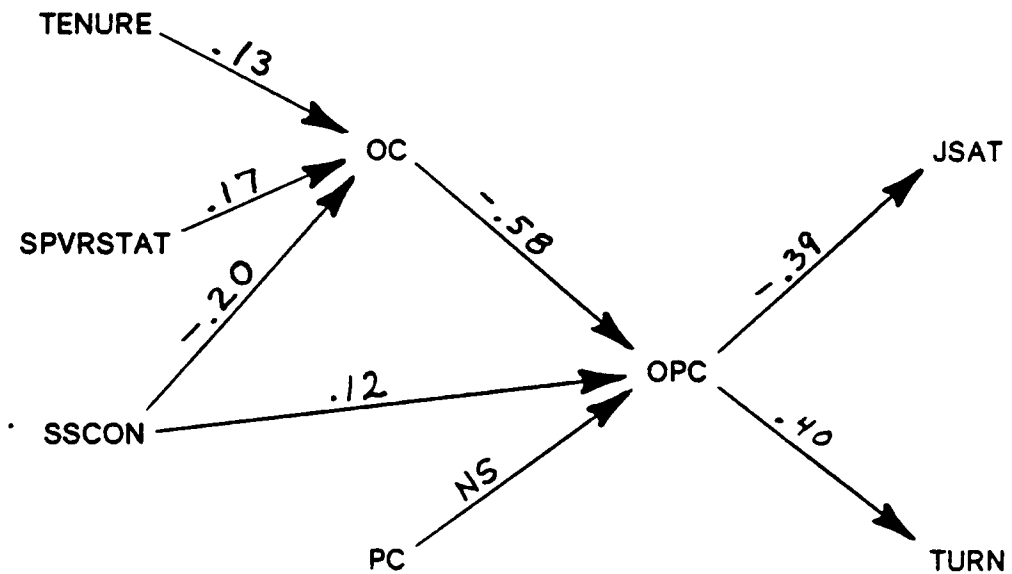
Table 8. Path Analysis -- All Management Accountants -- Direct Effects



Legend:

- | | | |
|----------|---|---|
| JSAT | = | Job satisfaction |
| TURN | = | Turnover intentions |
| OPC | = | Organizational-professional conflict |
| PC | = | Professional commitment |
| OC | = | Organizational commitment |
| SSCON | = | Level of perceived conflict between self and supervisor regarding professionalization of management accounting. |
| SPVRSTAT | = | Supervisor status of participant based on number of persons he or she supervises. |
| NS | = | Not significant |

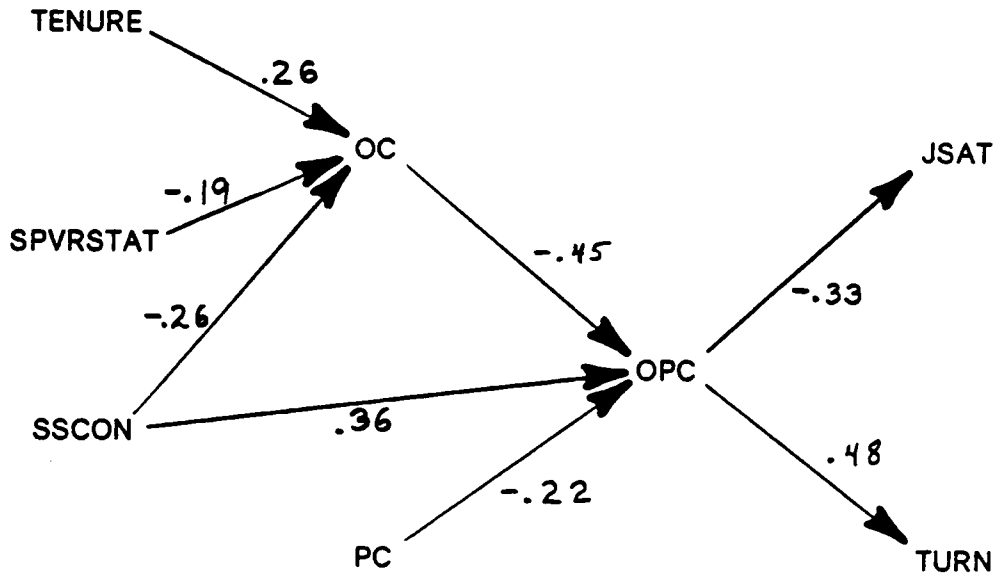
Table 9. Path Analysis -- Non-CMAs Only -- Direct Effects



Legend:

- JSAT = Job satisfaction
- TURN = Turnover intentions
- OPC = Organizational-professional conflict
- PC = Professional commitment
- OC = Organizational commitment
- SSCON = Level of perceived conflict between self and supervisor regarding professionalization of management accounting.
- SPVRSTAT = Supervisor status of participant based on number of persons he or she supervises.
- NS = Not significant

Table 10. Path Analysis -- CMAs Only -- Direct Effects



Legend:

- | | | |
|----------|---|---|
| JSAT | = | Job satisfaction |
| TURN | = | Turnover intentions |
| OPC | = | Organizational-professional conflict |
| PC | = | Professional commitment |
| OC | = | Organizational commitment |
| SSCON | = | Level of perceived conflict between self and supervisor regarding professionalization of management accounting. |
| SPVRSTAT | = | Supervisor status of participant based on number of persons he or she supervises. |
| NS | = | Not significant |

dependent variables. Thus, the chain of causal linkages can be visualized and the direct and indirect linkages can be distinguished from each other in this manner. The OPC model appears in Table 8 on page 116, as determined for all management accountants in the study, in Table 9 on page 117 for only those management accountants who are non-CMAs, and in Table 10 on page 118 for management accountants who are CMAs.

An additional interesting result is illustrated in Table 11 on page 120, which is an ordered listing of the mean OPC level for each of the occupations represented in the sample. The important point to note here is that the order of the list appears to add support to the finding of Aranya and Ferris [1984] that OPC tends to be higher in nonprofessional than in professional organizations.

Another result of the path analysis is further evidence that the presence or absence of conflict over professionalization between the accountant and his or her supervisor is a significant predictor of OPC. Since previous studies have not included this variable, no comparison can be made here between management accountants and other professional groups with respect to this SSSCON variable. Table 12 on page 121 presents, in tabular form, the significance measures for the regression models that comprise the path analysis models in this study. The interested reader will find more details in Appendix B. It should be reiterated here that the organizational differences between the work environment of the management accountant and that of the CPA practitioner are an important element

Table 11. Ranking of Mean OPC Level by Occupation within the Sample

RANK	OCCUPATION	MEAN OPC	STANDARD ERROR OF MEAN
1	PUBLIC ACCOUNTING	1.750	0.120
2	INTERNAL AUDITING	1.833	0.307
3	EDUCATION	2.400	1.166
4	MANAGEMENT	2.708	0.258
5	MANAGEMENT ACCOUNTING	3.235	0.120
6	GOVERNMENT	3.667	0.882

Table 12. Significance table for path models (See Appendix B for details)

<u>ALL MANAGEMENT ACCOUNTANTS</u>				
<u>Variables:</u>				
Dependent:	TURN	JSAT	OPC	OC
Independent:	OPC	OPC	PC OC SSCON	SSCON OC SPVRSTAT
R-squared	0.17	0.14	0.39	0.10
F	40.81	31.86	41.32	7.41
p	.00001	.00001	.00001	.00024
<u>NON-CMAs ONLY</u>				
Dependent:	TURN	JSAT	OPC	OC
Independent:	OPC	OPC	PC OC SSCON	SSCON OC SPVRSTAT
R-squared	0.16	0.15	0.38	0.10
F	29.06	26.98	30.99	5.92
p	.00001	.00001	.00001	.00107
<u>CMAs ONLY</u>				
Dependent:	TURN	JSAT	OPC	OC
Independent:	OPC	OPC	PC OC SSCON	SSCON OC SPVRSTAT
R-squared	0.23	0.11	0.46	0.21
F	46.17	18.82	42.41	13.48
p	.00001	.00012	.00001	.00001

in the interpretation of this phenomenon, and one of the factors that gave rise to this study in the first place.

Concluding Summary

Correlation and regression analyses were employed to examine the data collected from the 201 management accountants who were among the 281 NAA members who participated in the nation-wide survey. All of the hypotheses were supported at the $\alpha = 0.05$ level except H2 and H7, in which the predictor variables were the accountant's level within the hierarchy of the organization and the accountant's tenure with the organization, respectively.

SSCON (perceived conflict between self and supervisor regarding the degree to which management accounting has attained the status of a profession) was shown to be a strong predictor of organizational-professional conflict (OPC), as hypothesized a-priori. In particular, those management accountants whose professionalization concept is higher than the mean tend to experience significantly higher levels of OPC if they perceive that their supervisors disagree with them on this matter.

Path analyses indicated that organizational commitment among this group was an important predictor of OPC, and in turn, an important indirect predictor of turnover and job satisfaction.

Chapter 5

DISCUSSION OF RESULTS, LIMITATIONS, AND RECOMMENDED EXTENSIONS

Introductory Comments

The results of this study, taken in conjunction with earlier studies, strongly suggest that the attitudes of accountants about their organizations and their profession vary greatly among the various segments of the accounting profession. This is important information for employers, for leaders in the professional organizations, and for those researchers who wish to be involved in further refinement of our knowledge of the attitudes and actions of accounting professionals. The process of identifying and characterizing these varying attitudes is now in its early stages. This dissertation provides important new information regarding

these attitudes and actions; however, many additional studies will clearly be required before the problem can be fully resolved.

The researcher's interpretations of the statistical findings are presented in this chapter. Also discussed are the limitations of the study and suggestions of useful directions for future research.

A Recapitulation of the Research Questions and Design

The purpose of the study was to extend previous research involving the organizational commitment, professional commitment, and organizational-professional conflict (OPC) of professional accountants into the emerging profession of management accounting. Prior research had indicated important predictive relationships among these variables and had suggested that they, in turn, can predict important organizational outcomes, specifically, job satisfaction and turnover intent.

In addition to suggesting relationships among these variables, prior research had also suggested that OPC might tend to be more severe in those professionals who work for non-professional organizations, such as manufacturing corporations, than in those who are employed in professional organizations, such as public accounting firms. Previous accounting research in this area has focused on U.S. certified public accountants (CPAs) and Canadian chartered accountants

(CAs). Although a few of those CPAs and CAs have been employed in industry, rather than in public accounting firms, the evidence needed to test this suggestion has been heretofore inconclusive.

Discussion and Interpretation of the Research Findings

The first hypothesis under examination was designed to determine whether, for any substantial number of management accountants, there is a perception on their part that their supervisors fail to consider management accounting to be a profession to the same extent as the accountants themselves: That is, "There are management accountants whose self-concept as professionals is not accompanied by the perception of a similar concept in the eyes of their superiors."

The data showed clear support for this hypothesis. The majority of the management accountants surveyed indicated a belief that their supervisors do not attribute professionalism to management accountants to the same degree as the accountants themselves. The obvious corollary to this finding is that many supervisors of management accountants consider their subordinate management accountants to be more of the nature of common-law employees than of the nature of professionals. This perception by the supervisor is important because, if a supervisor attributes little or no importance to accountants' standards and/or ethics, while the accountant is attributing a great deal of importance to them, one

can readily imagine the kinds of disagreements that might develop. It was thus hypothesized *a-priori* that, should such differing perceptions be found to exist in more than a few isolated cases, then, the difference itself would tend to be positively and directly associated with higher levels of OPC. Hypothesis 1(b) was therefore constructed as follows: "Conflict between self-image and perceived superior-image of professional status (SSCON) tends to be positively associated with organizational-professional conflict (OPC)."

When the self-supervisor conflict variable was correlated with OPC, the result was a strong positive correlation, as hypothesized. This was further corroborated in the quadrant analysis, as the highest levels of OPC tended to occur in the quadrant that contained high levels of self-assessed professionalism and low levels of supervisor-assessed professionalism.

The conclusion, then, must be that SSCON (the self-supervisor conflict variable) is significant in its own right and perhaps should be considered in OPC research studies of other professional employees in non-professionals organizations.

When the path analyses were performed, the causal path coefficient (standardized beta) from SSCON to OPC emerged as 0.36 for CMAs ($p = 0.004$) and 0.12 ($p = 0.060$) for non-CMAs in management accounting. Thus, one can see that the magnitude and significance of the SSCON-OPC relationship appear to be greater among CMAs than among non-CMAs. This result has obvious intuitive appeal, but, unfortunately, it cannot be concluded that the CMA certifi-

ication itself had any bearing on the relationship. A more plausible explanation is that those management accountants who have strong feelings about professional standards and ethics are also the ones who are more likely to pursue the CMA certification and incur the sacrifices required to attain it.

This need not, however, detract from the importance of the result. Indeed, it suggests that the CMA tends to be more concerned about such matters than the non-CMA, and, regardless of the underlying reason, professionals and their employers should be cognizant of such concerns. Knowledge of this tendency might, for example, lead some corporate directors toward requiring CMAs for all newly-hired management accountants above a certain level in the corporate hierarchy.

The remaining hypotheses, H2 through H7, are not unique to the present study, nor are they new to the OPC literature in accounting. Their function is to extend into management accounting the exploration the organizational consequences of OPC in a fashion similar to that which has already begun for CPA practitioners and internal auditors. The previous literature had suggested a model in which OPC positively impinges upon turnover intent and negatively impinges upon job satisfaction (H4 and H5). The model further depicts OPC as being influenced by organizational commitment and professional commitment, which may, in turn, be influenced by such variables as level within the organization's hierarchy and the accountant's length of service with the organization (H2, H3, H6, and H7). Because of the availability of relevant models which had been

supported or, at least, not rejected, in prior OPC studies in accounting, the researcher was justified in hypothesizing, *a-priori*, the causal directionality among the variables in the current study.

The hypotheses relating OPC with tenure and with the accountant's level in the organization's hierarchy were not supported by the data at the 0.05 level of significance. This result is not a surprise, when one considers the nature of the management accountant's position in an industrial organization, which differs markedly from the CPA's position in a public accounting firm. Since the controller's (chief corporate accountant's) department is a service department, not directly involved in producing the organization's revenue-generating product or service, such concepts as length of service and level in the hierarchy are less relevant to the management accountant.

The Unanticipated Importance of Organizational Commitment

If one examines the correlation matrices that show the empirical relationships among the variables of interest, which are included in Appendix B to this study, it quickly becomes apparent that the hypothesized model does not explain the strong correlation between organizational commitment and job satisfaction ($r =$

0.69 for non-CMAs, 0.75 for CMAs) and between organizational commitment and turnover intent ($r = -0.55$ for non-CMAs, -0.72 for CMAs).

What the data suggest is that organizational commitment is a much more central and significant variable among management accountants than previous researchers have shown it to be among CPA practitioners and internal auditors. In fact, the apparent effect of organizational commitment on both turnover intent and job satisfaction is of the same order of magnitude as that of OPC, the central variable in the study.

The analysis also shows that organizational commitment has far more impact on OPC than does professional commitment, and this result is not significantly different for CMAs than for non-CMAs. This result will be a disappointment to those readers who wish to believe management accounting has already taken its place among the true professions, because it suggests that management accountants, as a group, have a strong loyalty to or identification with their organizations, perhaps stronger than to their profession. This is not a total surprise with respect to the non-CMA group; however, one might have assumed CMAs would respond in a way that indicates greater commitment to the goals and standards of their profession, relative to those of their organizations.

The unanticipated finding that organizational commitment remains a key factor with regard to the turnover intent and job satisfaction of management accountants raises a number of additional questions that should be of interest to the

professional organizations to which management accountants belong and to those who perform research in this area, as well as to the management accountants themselves:

- Is the inherent lack of independence of the management accounting function *vis-a-vis* his or her work organization sufficient in itself to preclude the management accountant's functioning as a true professional (whose primary loyalties are presumed to be to the public interest and to professional standards)?
- Can the organizations to which management accountants belong, such as the NAA, provide sufficient group strength to their members to allow their members to feel less dependent on their work affiliations, and thus more commitment to their peers, their professional standards, and their standards of ethical conduct?
- Is the professionalism of management accountants of sufficient concern to society that the standards of ethical conduct for management accounting might be brought into the scope of state accountancy laws, whereby they would gain the clout that accompanies legal enforceability, barriers to entry, and required licensure for corporate accountants?
- Will holders of the CMA certificate demand the formation of their own exclusive professional society, separate from the main body of the NAA? And, if so, will such fragmentation so damage the NAA that it becomes less effective as a professional referent body than it has been to date?

Limitations of the Study

Inherent in this undertaking are several limitations with respect to its strength and its generalizability. There are two categories of reasons for such limitations: (1) Factors over which the researcher had little or no control, and (2) Factors relating to trade-offs and compromises made by the researcher in the course of planning and conducting the study. Several items, including some from each category are discussed below.

Although an effort was made to select a sample that would be representative of management accountants throughout the United States, some questions remain regarding the representativeness of the sample, and thus the generalizability of the results. Although many U.S. management accountants hold membership in the NAA, from whose membership the sample was drawn, the researcher has little knowledge regarding the numbers or characteristics of management accountants who are not NAA members. One might speculate that NAA members tend to be more concerned with professional matters than nonmembers, but the researcher has not gathered evidence to support or rebut this speculation. Therefore, extrapolation of these results to management accountants other than NAA members would not be advisable.

Although this study uses attitudinal information about both the accountants and their supervisors in measuring the construct SCON (the conflict between

management accountants and their respective supervisors regarding the professionalization of management accounting), all of this information was as perceived by the management accountant. That is, the supervisors themselves were not surveyed, and if they had been surveyed, their responses might have differed from the way their subordinate management accountants might have expected. The writer believes that this surrogation was appropriate for several reasons, including the probability that it produced a substantially larger response than might have been possible if only related pairs (accountant and supervisor) of responses could be used. Also, there would likely have been a non-response bias among the supervisors, in that those who responded would tend to be the ones who cared about their subordinate accountants and agreed with them on matters of professionalization.

Company size was not included among the variables measured in this study, nor has it been a factor in most of the related studies that preceded it. When one considers, however, that important variations in the professional climate for accountants in of non-professional organizations might depend upon department size, and in turn, organization size, this is a variable that should be considered in future studies of organizational and attitudinal variables in management accounting. A related factor that may also be worth considering is that, where several CMAs are employed in the same organization, there could be opportunities for professional camaraderie *within* an organization which otherwise would only be possible *outside* the organization. This internal professional camaraderie may

impinge upon organizational commitment and job satisfaction, and possibly upon turnover intent.

Opportunities for Further Research

Path analysis relies upon theoretical models, generally developed from theoretical and empirical underpinnings that have evolved in previous studies. The model thus developed and tested in this study has not been rejected; in fact, it is, for the most part, rather strongly supported. However, because management accounting is both obviously and subtly different from professions previously studied, the proposed path model may be supplanted with more sophisticated models as additional studies are concluded. A hint that this is needed is found in the strong correlations, mentioned above, between organizational commitment and the consequent variables, job satisfaction and turnover intent.

The present study represents a first step in the important extension of research involving OPC, organizational and professional commitment, and organizational outcomes, such as turnover and job satisfaction, into the emerging profession of management accounting. The use of an existing model appeared to be the appropriate vehicle for taking such a step. However, as the the discussion in the first part of this chapter clearly discloses, management accountants appear not to have progressed as rapidly toward professionalization as might have been im-

agined. Also the future direction of their professionalization effort seems unclear. There is a need for continuing research to record the progress, over time, in the professionalization of management accounting. Additionally, there is a need to record the changing perceptions of accounting professionals regarding the meaning of professionalism and the goals of professionalization. In this same context, if the business community at large is to support the management accountants' professionalization efforts, business executives and owners must perceive value in this professionalization effort over and above its incremental cost. This implies a need for research that evaluates such benefits to the business community and thereby encourages executives and others to accept and perhaps assist in this effort, rather than perceiving it as a threat to the executive's autonomy in managing and accounting for business activities.

Concluding Comments

This dissertation represents a good-faith effort to identify and report information that will be beneficial to management accountants and their organizations, to the business community, and to those who, like this researcher, will be seeking answers to some of the enigmatic questions that characterize the position and the profession of management accountants. It is abundantly clear that the questions will not have easy answers. Nor are the answers likely to please everyone who has an interest in the management accounting profession. Let us

hope that wisdom prevails over narrow and short-run interests and that the profession of management accounting emerges as a strong, unified, and dynamic force, that can lead the business community into the twenty-first century with pride and integrity.

The response to the questionnaire was most gratifying. It is perceived as an indication that management accountants, and especially CMAs, desire more research that explores their efforts to further professionalize management accounting.

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Appendix A

STANDARDS OF ETHICAL CONDUCT FOR MANAGEMENT ACCOUNTANTS

This appendix contains the text of the National Association of Accountants (NAA) *Standards of Ethical Conduct for Management Accountants*, adopted June 1, 1983.⁹⁴

Standards of Ethical Conduct for Management Accountants

Management accountants have an obligation to the organizations they serve, their profession, the public, and themselves to maintain the highest standards of ethical conduct. In recognition of this obligation, the National Association of Accountants has promulgated the following standards of ethical conduct for management accountants. Adherence to these standards is integral to achieving the *Objectives of Management Accounting*⁹⁵ Management accountants shall not

⁹⁴ National Association of Accountants, *Statements on Management Accounting: Standards of Ethical Conduct for Management Accountants*, Statement No. 1C, New York, NY, June 1, 1983.

⁹⁵ National Association of Accountants, *Statements on Management Accounting: Objectives of Management Accounting*, Statement No. 1B, New York, NY, June 17, 1982.

commit acts contrary to these standards nor shall they condone the commission of such acts by others within their organizations.

Competence

Management accountants have a responsibility to:

- Maintain an appropriate level of professional competence by ongoing development of their knowledge and skills.
- Perform their professional duties in accordance with relevant laws, regulations, and technical standards.
- Prepare complete and clear reports and recommendations after appropriate analyses of relevant and reliable information.

Confidentiality

Management accountants have a responsibility to:

- Refrain from disclosing confidential information acquired in the course of their work except when authorized, unless legally obligated to do so.
- Inform subordinates as appropriate regarding the confidentiality of information acquired in the course of their work and monitor their activities to assure the maintenance of confidentiality.
- Refrain from using or appearing to use confidential information acquired in the course of their work for unethical or illegal advantage either personally or through third parties.

Integrity

Management accountants have a responsibility to:

- Avoid actual or apparent conflicts of interest and advise all appropriate parties of any potential conflict.
- Refrain from engaging in any activity that would prejudice their ability to carry out their duties ethically.
- Refuse any gift, favor, or hospitality that would influence or would appear to influence their actions.
- Refrain from either actively or passively subverting the attainment of the organization's legitimate and ethical objectives.
- Recognize and communicate professional limitations or other constraints that would preclude responsible judgment or successful performance of an activity.

- Communicate unfavorable as well as favorable information and professional judgments or opinions.
- Refrain from engaging in or supporting any activity that would discredit the profession.

Objectivity

Management accountants have a responsibility to:

- Communicate information fairly and objectively.
- Disclose fully all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, comments, and recommendations presented.

Resolution of Ethical Conflict

In applying the standards of ethical conduct, management accountants may encounter problems in identifying unethical behavior or in resolving an ethical conflict. When faced with significant ethical issues, management accountants should follow the established policies of the organization bearing on the resolution of such conflict. If these policies do not resolve the ethical conflict, management accountants should consider the following courses of action:

- Discuss the problems with the immediate superior except when it appears that the superior is involved, in which case the problem should be presented initially to the next higher managerial level. If satisfactory resolution cannot be achieved when the problem is initially presented, submit the issues to the next higher managerial level. If the immediate superior is the chief executive officer, or equivalent, the acceptable reviewing authority may be a group such as the audit committee, executive committee, board of directors, board of trustees, or owners. Contact with levels above the immediate superior should be initiated only with the superior's knowledge, assuming the superior is not involved.
- Clarify relevant concepts by confidential discussion with an objective advisor to obtain an understanding of possible courses of action.
- If the ethical conflict still exists after exhausting all levels of internal review, the management accountant may have no other recourse on significant matters than to resign from the organization and to submit an informative memorandum to an appropriate representative of the organization.

Except where legally prescribed, communication of such problems to authorities or individuals not employed or engaged by the organization is not considered appropriate.

Appendix B

CORRELATION, REGRESSION, AND PATH COEFFICIENT TABLES

Part 1: ALL MGT ACCOUNTANTS - CMA'S AND NON-CMA'S COMBINED

NUMBER OF CASES = 201
 N OF CASES = 201

CORRELATIONS:

	SPVRSTAT	TENURE	SSCON	OC	PC	OPC	JSAT	TURN
SPVRSTAT	1.0000	0.2366	-0.0230	0.1118	-0.0589	-0.1603	0.0103	-0.1505
TENURE	0.2366	1.0000	-0.0617	0.2152	0.0458	-0.1214	0.1189	-0.2971
SSCON	-0.0230	-0.0617	1.0000	-0.2397	0.0515	0.3122	-0.0877	0.1652
OC	0.1118	0.2152	-0.2397	1.0000	0.1727	-0.5943	0.7029	-0.5872
PC	-0.0589	0.0458	0.0515	0.1727	1.0000	-0.1352	0.1537	-0.1153
OPC	-0.1603	-0.1214	0.3122	-0.5943	-0.1352	1.0000	-0.3715	0.4125
JSAT	0.0103	0.1189	-0.0877	0.7029	0.1537	-0.3715	1.0000	-0.3202
TURN	-0.1505	-0.2971	0.1652	-0.5872	-0.1153	0.4125	-0.3202	1.0000

REGRESSION EQUATION # 1 DEPENDENT VARIABLE: TURN
 THE INDEPENDENT VARIABLES ARE: OPC

		ANALYSIS OF VARIANCE		
MULTIPLE R	.41254	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.17019	REGRESSION	1	150.41589
STANDARD ERROR	1.91975	RESIDUAL	199	733.39941
		F =	40.81372	SIGNIF F = 0.00000

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
OPC	0.5106462	0.0799313	0.4125400	6.3885603	0.00000
INTERCEPT	1.7930593				

REGRESSION EQUATION # 2 DEPENDENT VARIABLE: JSAT
 THE INDEPENDENT VARIABLES ARE: OPC

MULTIPLE R .37149 ANALYSIS OF VARIANCE
 R SQUARE .13800 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 1.41156 REGRESSION 1 63.48088 63.48088
 RESIDUAL 99 396.50952 1.99251
 F = 31.85976 SIGNIF F = 0.00001

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
OPC	-0.3317376	0.0587724	-0.3714900	-5.6444445	0.00000
INTERCEPT	6.2852907				

REGRESSION EQUATION # 3 DEPENDENT VARIABLE: OPC
 THE INDEPENDENT VARIABLES ARE: PC
 OC
 SSSCON

MULTIPLE R .62148 ANALYSIS OF VARIANCE
 R SQUARE .38624 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 1.34058 REGRESSION 3 222.79947 74.26648
 RESIDUAL 197 354.03784 1.79715
 F = 41.32468 SIGNIF F = 0.00000

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
PC	-0.1114225	0.1235694	-0.0513407	-0.9016999	0.36722
OC	-0.8708974	0.0942836	-0.5410029	-9.2369986	0.00000
SSCON	0.1931315	0.0602484	0.1851735	3.2055864	0.00135
INTERCEPT	7.8917131				

REGRESSION EQUATION # 4 DEPENDENT VARIABLE: OC
 THE INDEPENDENT VARIABLES ARE: SSSCON
 TENURE
 SPVRSTAT

MULTIPLE R .31850 ANALYSIS OF VARIANCE
 R SQUARE .10144 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 1.00763 REGRESSION 3 22.58046 7.52682
 RESIDUAL 197 200.01608 1.01531
 F = 7.41333 SIGNIF F = 0.00024

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
SSCON	-0.1469046	0.0438420	-0.2267401	-3.3507719	0.00081
TENURE	0.0252866	0.0094456	0.1863980	2.6770601	0.00743
SPVRSTAT	0.0417182	0.0463912	0.0625116	0.8992690	0.36851
INTERCEPT	4.6182070				

THE MATRIX OF STANDARD ERRORS FOR INDIRECT EFFECTS (METRIC):

TO:	TURN	JSAT	OPC	OC
FROM:				
OC	0.0940	0.0656	0.0000	0.0000
PC	0.0490	0.0320	0.0000	0.0000
SSCON	0.0461	0.0312	0.0423	0.0000
TENURE	0.0048	0.0032	0.0088	0.0000
SPVRSTAT	0.0210	0.0137	0.0407	0.0000

THE MATRIX OF T-VALUES FOR INDIRECT EFFECTS (METRIC):

TO:	TURN	JSAT	OPC	OC
FROM:				
OPC	0.0000	0.0000	0.0000	0.0000
OC	-4.7334	4.4057	0.0000	0.0000
PC	-1.1621	1.1567	0.0000	0.0000
SSCON	3.5553	-3.4100	3.0262	0.0000
TENURE	-2.3302	2.2878	-2.5026	0.0000
SPVRSTAT	-0.8835	0.8811	-0.8920	0.0000

THE MATRIX OF TWO-TAILED PROBABILITIES OF T-VALUES FOR INDIRECT EFFECTS (METRIC):

TO:	TURN	JSAT	OPC	OC
FROM:				
TURN	1.0000	1.0000	1.0000	1.0000
JSAT	1.0000	1.0000	1.0000	1.0000
OPC	1.0000	1.0000	1.0000	1.0000
OC	0.0000	0.0000	1.0000	1.0000
PC	0.2452	0.2474	1.0000	1.0000
SSCON	0.0004	0.0006	0.0025	1.0000
TENURE	0.0198	0.0221	0.0123	1.0000
SPVRSTAT	0.3770	0.3783	0.3724	1.0000

THE MATRIX OF DIRECT EFFECTS (STANDARDIZED):

TO:	TURN	JSAT	OPC	OC
FROM:				
TURN	0.0000	0.0000	0.0000	0.0000
JSAT	0.0000	0.0000	0.0000	0.0000
OPC	0.4125	-0.3715	0.0000	0.0000
OC	0.0000	0.0000	-0.5410	0.0000
PC	0.0000	0.0000	-0.0513	0.0000
SSCON	0.0000	0.0000	0.1852	-0.2267
TENURE	0.0000	0.0000	0.0000	0.1864
SPVRSTAT	0.0000	0.0000	0.0000	0.0625

THE MATRIX OF INDIRECT EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.0000	0.0000	0.0000	0.0000
OC		-0.2232	0.2010	0.0000	0.0000
PC		-0.0212	0.0191	0.0000	0.0000
SSCON		0.1270	-0.1144	0.1227	0.0000
TENURE		-0.0416	0.0375	-0.1008	0.0000
SPVRSTAT		-0.0140	0.0126	-0.0338	0.0000

THE MATRIX OF TOTAL CAUSAL EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.4125	-0.3715	0.0000	0.0000
OC		-0.2232	0.2010	-0.5410	0.0000
PC		-0.0212	0.0191	-0.0513	0.0000
SSCON		0.1270	-0.1144	0.3078	-0.2267
TENURE		-0.0416	0.0375	-0.1008	0.1864
SPVRSTAT		-0.0140	0.0126	-0.0338	0.0625

Part 2: NON-CMAs ONLY

N OF CASES = 156

CORRELATIONS:

	SPVRSTAT	TENURE	SSCON	OC	PC	OPC	JSAT	TURN
SPVRSTAT	1.0000	0.3331	-0.0663	0.2204	-0.0201	-0.1924	0.1015	-0.2185
TENURE	0.3331	1.0000	-0.0688	0.1935	0.0466	-0.1347	0.0843	-0.3075
SSCON	-0.0663	-0.0688	1.0000	-0.2199	0.0191	0.2503	-0.0612	0.1845
OC	0.2204	0.1935	-0.2199	1.0000	0.2141	-0.6041	0.6897	-0.5528
PC	-0.0201	0.0466	0.0191	0.2141	1.0000	-0.1238	0.1778	-0.1233
OPC	-0.1924	-0.1347	0.2503	-0.6041	-0.1238	1.0000	-0.3861	0.3984
JSAT	0.1015	0.0843	-0.0612	0.6897	0.1778	-0.3861	1.0000	-0.3013
TURN	-0.2185	-0.3075	0.1845	-0.5528	-0.1233	0.3984	-0.3013	1.0000

REGRESSION EQUATION # 1 DEPENDENT VARIABLE: TURN

THE INDEPENDENT VARIABLES ARE: OPC

MULTIPLE R	R SQUARE	STANDARD ERROR	ANALYSIS OF VARIANCE		
			REGRESSION	RESIDUAL	F =
.39844	.15875	1.95720	1	154	29.06187
					SIGNIF F = 0.00001

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
----------	---	------	------	---	-------

OPC	0.5074739	0.0941352	0.3984400	5.3909044	0.00000
INTERCEPT	1.7204552				

REGRESSION EQUATION # 2 DEPENDENT VARIABLE: JSAT

THE INDEPENDENT VARIABLES ARE: OPC

MULTIPLE R	R SQUARE	STANDARD ERROR	ANALYSIS OF VARIANCE		
			REGRESSION	RESIDUAL	F =
.38608	.14906	1.40484	1	154	26.97586
					SIGNIF F = 0.00002

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
----------	---	------	------	---	-------

OPC	-0.3509397	0.0675686	-0.3860800	-5.1938295	0.00000
INTERCEPT	6.3734856				

REGRESSION EQUATION # 3 DEPENDENT VARIABLE: OPC
 THE INDEPENDENT VARIABLES ARE: PC
 OC
 SSSCON

MULTIPLE R .61603 ANALYSIS OF VARIANCE
 R SQUARE .37949 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 1.32842 REGRESSION 3 164.04523 54.68173
 RESIDUAL 152 268.23389 1.76470
 F = 30.98648 SIGNIF F = 0.00000

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
PC	-0.0057609	0.1367032	-0.0027631	-0.0421413	0.96639
OC	-0.9132182	0.1064763	-0.5763665	-8.5767260	0.00000
SSCON	0.1351919	0.0718030	0.1236157	1.8828154	0.05973
INTERCEPT	7.6158228				

REGRESSION EQUATION # 4 DEPENDENT VARIABLE: OC
 THE INDEPENDENT VARIABLES ARE: SSSCON
 TENURE
 SPVRSTAT

MULTIPLE R .32351 ANALYSIS OF VARIANCE
 R SQUARE .10466 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 1.00712 REGRESSION 3 18.02109 6.00703
 RESIDUAL 152 154.17076 1.01428
 F = 5.92245 SIGNIF F = 0.00107

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
SSCON	-0.1382794	0.0531579	-0.2003347	-2.6012964	0.00929
TENURE	0.0164769	0.0107765	0.1246089	1.5289669	0.12627
SPVRSTAT	0.1117969	0.0550193	0.1655741	2.0319586	0.04216
INTERCEPT	4.4735327				

THE MATRIX OF T-VALUES FOR INDIRECT EFFECTS (METRIC):

TO:	TURN	JSAT	OPC	OC
FROM:				
TURN	0.0000	0.0000	0.0000	0.0000
JSAT	0.0000	0.0000	0.0000	0.0000
OPC	0.0000	0.0000	0.0000	0.0000
OC	-4.1953	4.1003	0.0000	0.0000
PC	-0.0541	0.0541	0.0000	0.0000
SSCON	2.5626	-2.5405	2.4240	0.0000
TENURE	-1.4365	1.4326	-1.4904	0.0000
SPVRSTAT	-1.8287	1.8207	-1.9440	0.0000

THE MATRIX OF TWO-TAILED PROBABILITIES OF T-VALUES
FOR INDIRECT EFFECTS (METRIC):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		1.0000	1.0000	1.0000	1.0000
JSAT		1.0000	1.0000	1.0000	1.0000
OPC		1.0000	1.0000	1.0000	1.0000
OC		0.0000	0.0000	1.0000	1.0000
PC		0.9569	0.9569	1.0000	1.0000
SSCON		0.0104	0.0111	0.0154	1.0000
TENURE		0.1508	0.1520	0.1361	1.0000
SPVRSTAT		0.0674	0.0687	0.0519	1.0000

THE MATRIX OF DIRECT EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.3984	-0.3861	0.0000	0.0000
OC		0.0000	0.0000	-0.5764	0.0000
PC		0.0000	0.0000	-0.0028	0.0000
SSCON		0.0000	0.0000	0.1236	-0.2003
TENURE		0.0000	0.0000	0.0000	0.1246
SPVRSTAT		0.0000	0.0000	0.0000	0.1656

THE MATRIX OF INDIRECT EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.0000	0.0000	0.0000	0.0000
OC		-0.2296	0.2225	0.0000	0.0000
PC		-0.0011	0.0011	0.0000	0.0000
SSCON		0.0953	-0.0923	0.1155	0.0000
TENURE		-0.0286	0.0277	-0.0718	0.0000
SPVRSTAT		-0.0380	0.0368	-0.0954	0.0000

THE MATRIX OF TOTAL CAUSAL EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.3984	-0.3861	0.0000	0.0000
OC		-0.2296	0.2225	-0.5764	0.0000
PC		-0.0011	0.0011	-0.0028	0.0000
SSCON		0.0953	-0.0923	0.2391	-0.2003
TENURE		-0.0286	0.0277	-0.0718	0.1246
SPVRSTAT		-0.0380	0.0368	-0.0954	0.1656

Part 3: CMAs ONLY

N OF CASES = 45

CORRELATIONS:

	SPVRSTAT	TENURE	SSCON	OC	PC	OPC	JSAT	TURN
SPVRSTAT	1.0000	-0.1452	0.0713	-0.2442	-0.1947	-0.0664	-0.3003	0.0898
TENURE	-0.1452	1.0000	-0.1366	0.3218	0.0864	-0.1286	0.2675	-0.2300
SSCON	0.0713	-0.1366	1.0000	-0.3099	0.1723	0.4580	-0.1844	0.1541
OC	-0.2442	0.3218	-0.3099	1.0000	0.0204	-0.5647	0.7505	-0.7175
PC	-0.1947	0.0864	0.1723	0.0204	1.0000	-0.1710	0.0703	-0.0966
OPC	-0.0664	-0.1286	0.4580	-0.5647	-0.1710	1.0000	-0.3300	0.4803
JSAT	-0.3003	0.2675	-0.1844	0.7505	0.0703	-0.3300	1.0000	-0.3904
TURN	0.0898	-0.2300	0.1541	-0.7175	-0.0966	0.4803	-0.3904	1.0000

REGRESSION EQUATION # 1 DEPENDENT VARIABLE: TURN

THE INDEPENDENT VARIABLES ARE: OPC

MULTIPLE R .48028

ANALYSIS OF VARIANCE

R SQUARE .23067

STANDARD ERROR 1.79580

	DF	SUM OF SQUARES	MEAN SQUARE
REGRESSION	1	41.57790	41.57790
RESIDUAL	43	138.67143	3.22492
F =	12.89270	SIGNIF F =	0.00117

----- REGRESSION EQUATION -----
 VARIABLE B SE B BETA T SIG T

OPC 0.5394484 0.1502374 0.4802800 3.5906391 0.00033
 INTERCEPT 1.9895115

REGRESSION EQUATION # 2 DEPENDENT VARIABLE: JSAT

THE INDEPENDENT VARIABLES ARE: OPC

MULTIPLE R .33003

ANALYSIS OF VARIANCE

R SQUARE .10892

STANDARD ERROR 1.46002

	DF	SUM OF SQUARES	MEAN SQUARE
REGRESSION	1	11.20403	11.20403
RESIDUAL	43	91.66096	2.13165
F =	5.25604	SIGNIF F =	0.02527

----- REGRESSION EQUATION -----
 VARIABLE B SE B BETA T SIG T

OPC -0.2800310 0.1221453 -0.3300300 -2.2926054 0.02187
 INTERCEPT 6.0408554

REGRESSION EQUATION # 3 DEPENDENT VARIABLE: OPC
 THE INDEPENDENT VARIABLES ARE: PC

OC
 SSSCON

MULTIPLE R .67500 ANALYSIS OF VARIANCE
 R SQUARE .45562 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 1.37733 REGRESSION 3 65.09807 21.69936
 RESIDUAL 41 77.77890 1.89705
 F = 11.43850 SIGNIF F = 0.00006

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
PC	-0.5598242	0.2940919	-0.2233706	-1.9035683	0.05697
OC	-0.7561943	0.2045497	-0.4494364	-3.6968737	0.00022
SSCON	0.3388327	0.1170285	0.3572598	2.8952999	0.00379
INTERCEPT	9.5864763				

REGRESSION EQUATION # 4 DEPENDENT VARIABLE: OC
 THE INDEPENDENT VARIABLES ARE: SSSCON

TENURE
 SPVRSTAT

MULTIPLE R .45835 ANALYSIS OF VARIANCE
 R SQUARE .21008 DF SUM OF SQUARES MEAN SQUARE
 STANDARD ERROR 0.98608 REGRESSION 3 10.60289 3.53430
 RESIDUAL 41 39.86688 0.97236
 F = 3.63475 SIGNIF F = 0.02019

----- REGRESSION EQUATION -----

VARIABLE	B	SE B	BETA	T	SIG T
SSCON	-0.1471932	0.0790908	-0.2611271	-1.8610649	0.06273
TENURE	0.0419887	0.0229503	0.2587931	1.8295469	0.06732
SPVRSTAT	-0.1209815	0.0904191	-0.1879674	-1.3380070	0.18089
INTERCEPT	5.0269985				

THE MATRIX OF STANDARD ERRORS FOR INDIRECT EFFECTS (METRIC):

TO:	TURN	JSAT	OPC	OC
FROM:				
TURN	0.0000	0.0000	0.0000	0.0000
JSAT	0.0000	0.0000	0.0000	0.0000
OPC	0.0000	0.0000	0.0000	0.0000
OC	0.1951	0.1237	0.0000	0.0000
PC	0.1387	0.0892	0.0000	0.0000
SSCON	0.1034	0.0684	0.0738	0.0000
TENURE	0.0124	0.0071	0.0213	0.0000
SPVRSTAT	0.0438	0.0243	0.0771	0.0000

THE MATRIX OF T-VALUES FOR INDIRECT EFFECTS (METRIC):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.0000	0.0000	0.0000	0.0000
OC		-2.0905	1.7112	0.0000	0.0000
PC		-2.1767	1.7575	0.0000	0.0000
SSCON		2.3476	-1.8438	1.5076	0.0000
TENURE		-1.3768	1.2497	-1.4907	0.0000
SPVRSTAT		1.1270	-1.0540	1.1869	0.0000

THE MATRIX OF TWO-TAILED PROBABILITIES OF T-VALUES FOR INDIRECT EFFECTS (METRIC):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		1.0000	1.0000	1.0000	1.0000
JSAT		1.0000	1.0000	1.0000	1.0000
OPC		1.0000	1.0000	1.0000	1.0000
OC		0.0366	0.0870	1.0000	1.0000
PC		0.0295	0.0788	1.0000	1.0000
SSCON		0.0189	0.0652	0.1317	1.0000
TENURE		0.1686	0.2114	0.1360	1.0000
SPVRSTAT		0.2598	0.2919	0.2353	1.0000

THE MATRIX OF DIRECT EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.4803	-0.3300	0.0000	0.0000
OC		0.0000	0.0000	-0.4494	0.0000
PC		0.0000	0.0000	-0.2234	0.0000
SSCON		0.0000	0.0000	0.3573	-0.2611
TENURE		0.0000	0.0000	0.0000	0.2588
SPVRSTAT		0.0000	0.0000	0.0000	-0.1880

THE MATRIX OF INDIRECT EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.0000	0.0000	0.0000	0.0000
OC		-0.2159	0.1483	0.0000	0.0000
PC		-0.1073	0.0737	0.0000	0.0000
SSCON		0.2280	-0.1566	0.1174	0.0000
TENURE		-0.0559	0.0384	-0.1163	0.0000
SPVRSTAT		0.0406	-0.0279	0.0845	0.0000

THE MATRIX OF TOTAL CAUSAL EFFECTS (STANDARDIZED):

FROM:	TO:	TURN	JSAT	OPC	OC
TURN		0.0000	0.0000	0.0000	0.0000
JSAT		0.0000	0.0000	0.0000	0.0000
OPC		0.4803	-0.3300	0.0000	0.0000
OC		-0.2159	0.1483	-0.4494	0.0000
PC		-0.1073	0.0737	-0.2234	0.0000
SSCON		0.2280	-0.1566	0.4746	-0.2611
TENURE		-0.0559	0.0384	-0.1163	0.2588
SPVRSTAT		0.0406	-0.0279	0.0845	-0.1880

Appendix C

QUESTIONNAIRE AND TRANSMITTAL LETTER

This appendix contains the questionnaire, including its cover letter, which was mailed to 599 members of the National Association of Accountants.

Mr. John P. Doe, CMA
Vice President and Controller
USA Manufacturing Company, Inc.
1776 America Street
Winston Salem, NC 27101

Dear Mr. Doe:

Your name has been provided to me by the National Association of Accountants as one who is qualified to participate in an important study of professionalism in management accounting.

It will take only a few minutes to complete the research questions in the instrument that accompanies this letter, and your responses will be kept absolutely confidential. A postage-paid return envelope is enclosed for your convenience.

**PLEASE COMPLETE AND RETURN THE RESEARCH INSTRUMENT
EVEN IF YOU ARE NOT CURRENTLY WORKING AS A MANAGEMENT ACCOUNTANT.**

If you want to make comments in addition to the specific answers requested, your input will be welcome. All comments from participants will be carefully considered.

It is most important to the success of the study that you complete and return the research instrument. I hope you will do so today, before you forget. I deeply appreciate your cooperation.

I would be pleased to provide you with a summary of the research findings, upon request, when the study has been completed. You may write or call me if you have any questions about this study. My address and telephone numbers are indicated below.

Sincerely,

Calvert McGregor
Asst. Professor of Accounting

RESEARCH STUDY: PROFESSIONALISM IN MANAGEMENT ACCOUNTING

PART A -- INFORMATION ABOUT THE PARTICIPANT

1. In what field or profession are you NOW working?

- Management Accounting _____
- Public Accounting _____
- Internal Auditing _____
- Management _____
- Education _____
- Government _____
- Other (please indicate) _____

2. Your present occupation and/or title within this field or profession: _____

4. Your present age: _____ years.

5. Your sex: (Circle one) M F

6. How long have you been with your present organization? _____ Years

7. Indicate any professional certifications you have attained. Also, indicate how many years you have held each certificate.

CERTIFICATE or TITLE	_____	YEARS HELD
CMA	_____	_____
CPA	_____	_____
Certified Internal Auditor	_____	_____
Certified Financial Analyst	_____	_____
Other(s) _____	_____	_____

8. Indicate any professional organizations to which you belong and how many years you have been a member.

ORGANIZATION	_____	YEARS A MEMBER
National Association of Accountants	_____	_____
American Institute of CPAs	_____	_____
State CPA society or association	_____	_____
Institute of Internal Auditors	_____	_____
American Accounting Association	_____	_____
Other(s) _____	_____	_____

9. Which of the following most nearly describes your highest level of formal education?

- High school diploma or equivalent _____
- Some college work but not a degree _____
- Associate (2-year) degree _____
- Bachelor's degree _____
- Some graduate work but not a degree _____
- Master's degree _____
- Doctoral degree _____

10. Have you ever worked in a public accounting firm? YES__ NO__

If you answered NO, skip the remainder of No.10; go to No.11.

How long did you work in public accounting? _____ years

Which of the following best describes your highest position in a public accounting firm?

- Clerical or secretarial _____
- Staff accountant _____
- Senior accountant _____
- Manager _____
- Partner/Owner/Shareholder _____
- Other: _____

Was the public accounting firm in which you attained the highest position a:

- Local firm with one office? _____
- Regional or multi-office local firm? _____
- National or international firm? _____

11. How many individuals do you supervise in your present position?

- Directly _____
- Indirectly _____
- Total _____

12. Is your immediate supervisor (or rating official) an accountant?

YES__ NO__

If you answered YES, please indicate any professional designation(s) he or she has attained (CMA, CPA, etc.).

PART B -- THE PARTICIPANT'S ORGANIZATION

The following questions are about your relationship with your present organization. Your answer to each question will be an expression of agreement or disagreement with a given statement, on a scale from 1 (STRONGLY DISAGREE) to 7 (STRONGLY AGREE). Please choose a number for each item, even if you also write additional comments. Indicate your answer by circling one number for each question.

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

2. I talk up this organization to my friends as a great organization to work for.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

3. I feel very little loyalty to this organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

4. I would accept almost any type of job assignment in order to keep working for this organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

5. I find that my values and the organization's are very similar.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

6. I am proud to tell others that I am part of this organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

7. I could just as well be working for another organization as long as the type of work was similar.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

8. This organization really inspires the very best in me in the way of job performance.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

9. It would take very little change in my present circumstances to cause me to leave this organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

10. I am extremely glad that I chose this organization to work for, over others I was considering at the time I joined.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

11. There is not too much to be gained by sticking with this organization indefinitely.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

13. I really care about the fate of this organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

14. For me, this is the best possible organization to work for.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

15. Deciding to work for this organization was a definite mistake on my part.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

16. It is likely that I will actively look for another organization to work for in the next year.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

17. The type and structure of my employment framework give me the opportunity to fully express myself as a professional.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

PART C -- THE PARTICIPANT'S PROFESSION

The following questions are about your relationship with the profession in which you are currently working. Your answer to each of these questions will be an expression of agreement or disagreement with a given statement, on a scale from 1 (strong disagreement) to 7 (strong agreement). Please choose a number for each item, even if you also write additional comments.

1. I am willing to put in a great deal of effort beyond that normally expected in order to help my present profession to meet its objectives.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

2. I talk up my profession to my friends as a great profession to work in.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

3. I feel very little loyalty to my profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

4. I would accept almost any type of job assignment in order to keep working in this profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

5. I find that my values and my profession's are very similar.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

6. I am proud to tell others that I am part of this profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

7. I could just as well be working in another profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

8. This profession really inspires the very best in me in the way of job performance.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

9. It would take very little change in my present circumstances to cause me to leave this profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

10. I am extremely glad that I chose this profession to work in, over others I was considering at the time I joined.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

11. There is not too much to be gained by sticking with this profession indefinitely.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

12. Often, I find it difficult to agree with the profession's policies on important matters relating to its members.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

13. I really care about the future of this profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

14. For me, my present profession is the best of all possible professions to work in.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

15. Deciding to work in the this profession was a definite mistake on my part.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

16. My superiors encourage me to be an active member of my profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

PART D -- PROFESSIONALIZATION OF MANAGEMENT ACCOUNTING

A stated objective of the Certified Management Accountant (CMA) program is "to establish management accounting as a recognized profession." Indicate your agreement or disagreement with the following statements regarding the professionalization of management accounting **EVEN IF YOU ARE NOT PRESENTLY WORKING IN THE PROFESSION OF MANAGEMENT ACCOUNTING**. When a question refers to your superiors, it refers to those individuals who shape the priorities and policies of the organization in which you work, including, but not limited to, your immediate supervisor (or rating official).

1. I believe that management accounting is more recognized as a profession today than it was 15 years ago.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

2. My superiors believe that management accounting has become a recognized profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

3. My superiors and I disagree strongly regarding my status as a professional.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

4. I believe that management accountants can better serve their employer organizations if they are regarded as members of a recognized profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

5. I believe that management accountants' responsibility to the public is as great as their responsibility to their employers.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

6. I believe that the ethics and standards of one's profession should take precedence over the goals, pressures, or customs of a particular organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

7. A management accountant's primary responsibility is to the organization in which he or she is employed.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

8. My immediate supervisor (or rating official) believes that management accounting has become a recognized profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

9. In general, the business community has accepted management accounting as a recognized profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

10. It makes no difference to me whether or not management accounting is recognized as a profession.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

11. Management accountants often disagree with their superiors who are not accountants as to who should establish accounting policies or priorities for their organization.

STRONGLY DISAGREE 1 2 3 4 5 6 7 STRONGLY AGREE

12. Using your own concept of what a profession is, please rate each of the following occupations, which are in random order, from (1) nonprofessional to (7) highly professional (Circle one number on each line).

____ OCCUPATION ____	NON-PROFESSIONAL-----HIGHLY PROFESSIONAL						
Architects	1	2	3	4	5	6	7
Veterinarians	1	2	3	4	5	6	7
Attorneys	1	2	3	4	5	6	7
Registered nurses	1	2	3	4	5	6	7
Management accountants (non-CMA)	1	2	3	4	5	6	7
Public school teachers	1	2	3	4	5	6	7
Realtors	1	2	3	4	5	6	7
Electrical engineers	1	2	3	4	5	6	7
Medical doctors	1	2	3	4	5	6	7
Certified public accountants	1	2	3	4	5	6	7
Bank loan officers	1	2	3	4	5	6	7
College professors	1	2	3	4	5	6	7
Pharmacists	1	2	3	4	5	6	7
Certified management accountants	1	2	3	4	5	6	7
Internal Revenue Service agents	1	2	3	4	5	6	7
Internal auditors	1	2	3	4	5	6	7
Ministers	1	2	3	4	5	6	7
Dentists	1	2	3	4	5	6	7

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