

Fee Structure and Other Factors Impacting Client Perceived Satisfaction with Management Advisory Services

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Abstract

The accounting profession continually must strive to maintain its reputation for high integrity and high client satisfaction with the services it provides. Client perceptions of satisfaction regarding the consulting services provided may affect this reputation. While several studies have addressed factors impacting audit cost and quality, no known study has investigated factors impacting client satisfaction with MAS cost and quality. The primary objectives of this study are to identify the association between: (1) MAS satisfaction measures and fee structure type (i.e., fixed fee dollar amount, fixed fee within a range, or hourly rate), (2) MAS satisfaction measures and cost overruns, and (3) MAS satisfaction measures and the provider of that service (i.e., incumbent versus non-incumbent audit firm). Initial findings include that fee structure does not significantly influence client MAS satisfaction; however, clients are less satisfied with MAS when the final fee is greater than the initial estimate, and with MAS provided by the non-incumbent audit firm. Implications of these results also are discussed.

Introduction

The mix of services provided by CPA firms has changed significantly over the last two decades. Read and Tomczyk (1992) studied the expanding scope of services provided by accounting firms and noted significant growth in Management Advisory Services (MAS) for the period 1982 to 1988. In contrast to MAS, audit and tax services for all three tiers of accounting firms experienced only modest revenue growth. The Wall Street Journal (June, 1996) reported that MAS revenues nearly doubled from 1990 through 1994, while audit revenues increased only 16 percent. These results

indicate that major accounting firms are becoming less dependent on revenue generated by audit services and more dependent on non-audit services.

While this shift in scope of services in CPA firms occurred, there are those within and outside the profession who have been concerned about the impact on the profession. In particular, critics have suggested that auditor independence is negatively affected by providing MAS to audit clients. Briloff has gone as far as calling for the "divestiture by our major accounting

firms of their management advisory consultative constituencies" (1994, pg. 29). Since the reputation, public perception and standing of CPA firms could be affected by client satisfaction with MAS, it is an important area of study. Read and Tomczyk (1992) concluded that:

"Detractors and supporters of the auditing profession ought to welcome any findings that help us better understand the changes in scope of professional services provided by CPA firms and their potential impact on auditor-client relationship" (1992, pg. 50).

In studying MAS, there are no standard measures of quality as is true for audit services. Even if such measures were available, client perceptions of quality are important to continued attracting or maintaining clients, and the growth and marketability of MAS. Kubr (1995, pg. 7) indicated that MAS "value" is first and foremost based on client perceptions that may be subjective. In spite of this subjectivity, consultants must increasingly focus on "...the degree of client satisfaction, aiming to judge them (service value) from the client's perspective...." In this study, client satisfaction is based on perceptions of cost fairness and service quality. Factors posited in this study to impact MAS client satisfaction include the type of fee structure, the existence of cost overruns, whether one accounting firm provides both MAS and audit services, and the type of MAS. Since no known study has addressed the effect of these factors on MAS satisfaction measures, this study's results are primarily descriptive and exploratory in nature. To better understand these factors, several questions should be addressed. First, is client satisfaction with MAS affected by how the accounting firm structures its fee? For example, are fixed fee engagements perceived to be more beneficial to clients than hourly rates? Second, is client satisfaction affected by cost overruns? Third, is client satisfaction affected by who conducts the MAS: the incumbent audit firm or an outside firm. Accountants have suggested that the incumbent auditor provides higher quality MAS at lower cost because they already have such a good understanding of the client. Do clients also

feel this is true? Fourth, what type of MAS are in highest demand and result in the highest client satisfaction? For example, are clients less satisfied with complex MAS engagements that stretch over long time periods?¹

The remainder of this article is divided into the following sections. The first section addresses the client MAS satisfaction measures used in this study. The second section examines the factors thought to be associated with perceived MAS satisfaction, including relevant literature review. The third section discusses the research methodology. The fourth section presents the descriptive and statistical results, while the fifth section addresses non response bias. A sixth section describes potential implications of the study results for the accounting profession. Finally, suggestions for future research are offered. As primarily a descriptive and exploratory study, an important outcome of this study will be the suggestions for future research.

MAS Satisfaction Measures

The two dependent measures used in this study are client perceived satisfaction with MAS cost and quality. Specifically, controllers of the largest U.S. publicly-held companies were asked to rate their satisfaction with the cost and quality of individual MAS provided by CPA firms on a scale of one to seven. A rating of one indicated "highly dissatisfied" while a rating of seven indicated "highly satisfied". Although clients may be reliable in assessing their satisfaction with an objective measure such as MAS cost, clients may not be as adept in assessing actual MAS quality, including individual attributes of MAS quality. This study contends that client MAS quality perceptions are critical since they may influence the overall public perception of the accounting profession, and its ability to continue the rate of MAS growth enjoyed in the 1980's and 1990's. In addition, unlike auditing, few benchmark indicators of MAS quality are available. There may be some concern as to whether MAS cost and quality are unique constructs. As previously stated, Kubr (1995) indicated that client perception of MAS "value" may be very subjective.

Previous audit literature, however, indicates that clients may make judgments about cost issues independently of quality issues. Therefore, this study will treat cost and quality assessments as unique constructs.

Literature Review

A framework for addressing two objectives of this study is based on related prior research. The first area focuses on the effect of fee structure on audit satisfaction. This research area discusses audit research and may have some similarities in an MAS environment. The second area addresses the potential benefits of joint provision of MAS and audit services. These two research areas are examined in the following section.

One objective of this study, the effect of cost overruns on MAS satisfaction, has not been addressed in previous MAS research. Since no previous MAS literature addresses cost overruns, a hypothesis is developed based on a priori expectations of the effect of cost overruns on MAS satisfaction.

The Effect of Fee Structure on Audit and MAS Satisfaction

Many accounting firm fee structure studies have examined audit fees rather than MAS fees. Of these studies, three examine the effects of fee structure on audit cost and quality (Margheim and Kelley, 1992; Palmrose, 1989; and Kelley and Margheim, 1987). These studies determined that audit quality or effectiveness is not significantly influenced by the use of a fixed fee versus an hourly rate structure. For example, Palmrose (1989) found that fixed fee engagements resulted in lower audit fees but not lower audit hours. Margheim and Kelley (1992) and Kelley and Margheim (1987) stated that the use of fixed fee billing arrangements should result in an *insignificant* increase in staff auditor dysfunctional behavior (i.e., premature sign-off on audit procedures). However, the authors concluded that accounting firm *partners* believe that client satisfaction with the quality of audit

services may be lower with a fixed fee arrangement. This "expectation gap" may result from client perceptions that an accounting firm will experience intense budget pressure in a fixed fee audit, and thus will be more likely to "cut corners".

According to Margheim and Kelley (1992), accounting firm partners believe that company satisfaction with audit costs should be higher with a fixed fee billing structure. Partners perceived that the type of fee structure may determine which party (client or auditor) assumes the risk of uncertainties relating to service cost (Margheim and Kelley, 1992). A fixed fee structure may shift the risk of audit cost uncertainty to the accounting firm, since any cost overruns are normally absorbed by the firm and not passed onto the client. An hourly rate would shift the risk of audit cost uncertainty to the client. Since a fixed fee should benefit the client by this shifting of risk to the accounting firm, companies should be more satisfied with fixed fee audit costs.

Similarly in the conduct of MAS, an hourly rate may shift the risk of service cost uncertainty to the client. Thus, MAS clients should be more satisfied with MAS cost when a fixed fee dollar billing arrangement is used. In contrast, if a fixed fee range or an hourly rate is used and the CPA firm revises fees upward while in the midst of a project, client satisfaction with MAS cost may decline.

These prior audit fee studies provide some theoretical support for the expected results in this study. Two issues, however, may limit the generalizability of these studies to the current study. First, the studies above are audit fee, not MAS fee studies. Second, the audit fee studies did not separately analyze the effects of fixed fee dollar amount versus fixed fee range engagements on audit satisfaction. Therefore, the association between the three possible fee structures and MAS satisfaction measures will be analyzed without an expected direction. The hypothesis based on the audit study literature is:

h₁ There is no difference in client satisfaction measures among the three possible fee structures.

Cost Overruns

The only study of cost overruns in providing CPA firm services is in the audit area. Many audit studies have investigated the association between audit "lowballing" and audit quality. (DeAngelo, 1981; Schatzberg, 1990; Dopuch and King, 1993; and Kanodia and Mukherji, 1995). Lowballing, however, implies an intent to underbid in the early years of a client relationship. Since most MAS contracts have duration of less than one year, lowballing as defined in an audit environment is not transferable to an MAS environment. Also, this study did not investigate the reason(s) for cost overruns. Instead, the a priori expectation was that clients may be less satisfied with MAS cost when cost overruns occur. The statistical results and future research sections discuss several potential reasons for MAS cost overruns.

The expected association between client satisfaction with MAS quality and cost overruns is less clear. Prior audit studies have not found a significant association between cost overruns (or lowballing) and audit quality measures. Thus, the association between cost overruns and MAS satisfaction measures (especially quality perceptions) will be analyzed without an expected direction

h₂ There is no difference in client satisfaction measures between MAS with cost overruns and MAS with no cost overruns.

Joint Provision of MAS and Audit Services

Simunic (1984), Palmrose (1986), Abdel-Khalik (1990), and Davis, Ricchiute, and Trompeter (1993) conducted studies to determine whether *positive* joint effects result from providing MAS to audit clients. Simunic (1984) and Palmrose (1986) found that *higher* audit fees result from the joint production of MAS and audit services. Davis et al. (1993) found similar results using extensive audit hour data as a proxy

for audit effort. Abdel-Khalik (1990) found no significant difference in audit fees with or without concurrent MAS. These results of these studies suggest little direct benefit to the client of joint production of MAS and audit services.

Unlike previous research that focused on audit fee effects, this study addresses the association between MAS conducted by the incumbent versus the non incumbent auditor and MAS satisfaction measures. Similar to Abdel-Khalik, this study utilizes a dichotomous factor since "... the dollar cost of MAS is a noisy measure because it represents payment for different products ..." (1990, pg. 301). Higher satisfaction with MAS provided by incumbent auditors may suggest that direct benefits accrue from joint production. For example, the auditor's client-specific knowledge of the accounting systems and internal controls obtained from the year-end audit may be transferable to MAS.

Hypothesis three is a test to determine whether clients perceive any benefit to joint provision of MAS and audit by the incumbent auditor. Other studies have posited that the client is better served by this joint provision of service. If this is true, client satisfaction should be higher when the incumbent auditor performs MAS.

h₃ There is no difference in satisfaction measures between MAS conducted by incumbent auditor and MAS conducted by a firm other than the incumbent auditor.

Methodology

This section presents an overview of the research methodology including discussion of questionnaire development, sample selection and number of complete responses.

Questionnaire Development

The questionnaire was designed after interviews with several practicing consultants from two of the Big Six firms. The questionnaire was then piloted to 42 companies in a large Midwestern metropolitan area. The firms selected for the

pilot were slightly smaller in total annual sales than those companies in the study sample. Follow-up telephone calls were made to the pilot survey respondents to ask if the questionnaire was clear and concise. A few suggestions for improvement were provided.

The survey divides MAS into the six categories identified by the Statement on Standards for Consulting Services (SSCS) (Muns, et al., 1991). A brief description of these six categories is as follows:

Consultations are completed in a short time and are based mostly on the CPA's existing knowledge. Examples are review of business plans or identification of financing alternatives.

Advisory Services usually involve developing recommendations for client consideration. Examples include compensation and benefits planning, computer system design or marketing.

Implementation Services involve putting into operation a plan or recommendation the client has accepted such as operational audit suggestions or an improved computer system.

Product Services occur when a CPA provides a product and associated professional services in support of its installation, use or maintenance. Examples are a packaged training program or accounting software.

Transaction Services relate to a specific client transaction and generally involve a third party. Examples are business valuations, merger or acquisitions and litigation services.

Support Services usually involve supplying firm personnel to perform tasks for the client.

Dividing MAS into these six categories is an extension to Palmrose (1986). Her study of the effect of nonaudit services on audit fees categorized nonaudit services as tax, accounting related MAS and non-accounting related MAS.

The questionnaire was designed to solicit responses about individual contract services that would be considered MAS. For the five-year period 1990 through 1994, controllers were asked to list the types of MAS purchased (based on the six categories identified by SSCS), the cost estimate for the service, the final price paid, and the type of fee structure ("1" if a fixed fee range, "2" if a fixed dollar amount, and "3" if an hourly rate). Controllers also were asked to identify the CPA firm that provided the MAS, to rate their satisfaction with MAS cost and quality, and the level of support provided by their own staff. As previously stated, the satisfaction measures were assessed according to a seven point scale with a rating of one indicating "highly dissatisfied" and a rating of seven indicating "highly satisfied".

Sample Selection and Number of Complete Responses

Since many large U.S. corporations purchase MAS from CPA firms, they were selected to receive the questionnaire. The largest 1,018 U.S. corporations were selected from the CD Disclosure data base. The selection criteria were U.S. corporations with sales greater than \$1.2 billion dollars. Similar to Palmrose (1989), the three page questionnaire was mailed to the controller or financial officer of each company.

101 corporations responded to the questionnaire resulting in a 10 percent response rate. Of these 101 corporations, 45 purchased MAS during the five-year period 1990 through 1994 from CPA firms, and 56 did not purchase MAS. The 45 corporations contracted to receive a total of 286 different MAS. Some of these contracted services were not useable for data analysis because complete questionnaire responses were not provided. For example, a controller may have forgotten to respond to the request for the level of satisfaction with MAS cost. After excluding incomplete responses, 254 useable MAS contracts remained. Of these 254, five were identified by the controllers responding as "other" fee structures. The remaining 249 MAS contracts were the basis for data analysis.

The questionnaire instructions requested assessments of MAS provided only by CPA firms. Although not specifically excluded in the instructions, no local or regional firms were listed as MAS providers for the responding companies. Thus, all responses indicated that MAS was provided by Big Six accounting firms.² Consulting firms such as EDS did not appear in the responses.

Study Results

This section provides an overview of the study results. As previously stated, due to the exploratory nature of this study, detailed descriptive data are presented. The descriptive data are followed by primarily univariate t-tests.

Descriptive Results

Descriptive data provide an initial indication of the direction and amount of impact of fee structure (h_1), cost overruns (h_2), and joint provision (h_3) on client satisfaction measures. Table 1 summarizes the means related to the three hypotheses. Also, descriptive data in Table 1 suggest the types of MAS in highest demand by the largest publicly-held corporations.

The first section of Table 1 reflects means for satisfaction measures by fee type. Mean satisfaction is lowest when the contracted cost is a fixed fee within a range (mean = 5.294). Perhaps this type of fee structure leads to more disagreement between client and CPA

Table 1
Summary of Various Means Comparisons

MAS Grouped by:	n	Satisfaction with Cost	Satisfaction with Quality
Fee Type			
Fixed Fee Range	85	5.294	5.588
Fixed Fee Dollar	56	5.786	5.839
Hourly Rate	108	5.426	5.833
	<u>249</u>		
Cost Overruns			
Fee Increased During Project	30	3.900	4.633
Fee Not Increased During Project	126	5.698	5.976
	<u>156</u>		
Joint Provision			
Incumbent Auditor Conducted MAS	49	5.640	5.800
Non-incumbent Conducted MAS	200	4.735	5.551
	<u>249</u>		
MAS Type			
Consultations	46	5.413	5.587
Advisory Services	63	5.540	5.889
Implementation Services	31	4.903	5.194
Product Services	44	6.045	6.432
Transaction Services	41	5.244	5.439
Support Services	24	5.375	5.708
	<u>249</u>		

firm as to whether particular circumstances warrant increasing the fee. Clients appear to be most satisfied with the contracted cost when the fee is a fixed dollar amount. Typically, these fees are only increased when unforeseen circumstances are encountered. In fact, only two of the 45 contracted services provided on a fixed fee dollar basis resulted in subsequent fee increases. As previously stated, a fixed fee dollar amount appears to benefit the company by shifting the risk of final MAS cost uncertainty to the accounting firm, since any cost overruns are absorbed by the firm.

In contrast to Margheim and Kelley (1992), client perceptions of MAS quality are highest when a fixed dollar rate structure is utilized. Specifically, Margheim and Kelley (1992) found that audit partners believed that hourly rate fee structures resulted in the highest perception of audit quality. Correspondingly, they found that audit partners believed clients would be less satisfied with the quality of fixed fee audits. Under an hourly rate structure, the CPA firm has less pressure to complete the engagement in a predetermined number of hours. Clients, should therefore, have the impression that the MAS provider does not "cut corners".

Interviews with consultants employed by two of the Big Six firms revealed that accounting firms expected to absorb some cost overruns when utilizing a fixed fee structure. The consultants stated that MAS quality is not compromised because profit margins are normally much higher for MAS contracts versus audit contracts. Higher profit margins are possible with MAS contracts since they are often viewed as providing "value" to the company, while audits may be viewed as a commodity. Thus, because of greater budget constraints, a fixed fee audit structure may have a more adverse impact on perceived audit quality than a fixed fee MAS structure may have on perceived MAS quality.

There is little or no evidence of MAS provided on a commission basis. Although the AICPA partially lifted the prohibition against receiving commissions in 1987, many accounting

firms have been reluctant to provide MAS on a commission basis. One reason is that many state boards have not until very recently lifted their bans against receiving commissions for products or services rendered.

The second section of Table 1 summarizes means for satisfaction measures categorized by either a fee increase (cost overruns) during the engagement or no fee increase. To arrive at the number of MAS contracts in each category, two steps were necessary. First, 93 MAS contracts did not include an initial estimated cost. Some controllers indicated that either estimated costs were not available or were not applicable. Thus, 156 MAS contracts were analyzed in this section. Second, these contracts were divided into two groups. The first group comprised MAS for which the final cost is greater than the initial estimate. The mean fee increase in this group is \$143,800 or 35.7 percent of the total fee. The second group represented MAS for which the final cost was not greater than the initial estimate. Clients were much less satisfied with MAS cost and quality when fees were subsequently increased.

The third section of Table 1 provides the mean satisfaction measures categorized into services provided by incumbent versus non-incumbent audit firms. The number of MAS engagements that were conducted by the incumbent auditor is 80.3 percent (200/249). While clients appear somewhat more satisfied with MAS quality, clients appear much more satisfied with MAS cost when services are conducted by the incumbent auditor.

The final section of Table 1 presents mean satisfaction by MAS type and an analysis of the demand for each type of service. Advisory services appear to be the type of MAS most demanded ($n = 63$) by the largest publicly-held corporations.³ As described earlier, advisory services involve developing recommendations for client consideration including compensation and benefit planning, and computer system design. Consultations, product services, and transaction services also appear to be in high demand.

Implementation services have the lowest perceived satisfaction with contract cost and quality of service. This may be attributable to high task uncertainty and complexity relative to other types of services (i.e., consultations and support services). Because of their low task uncertainty, the majority of consultations, transaction services, and support services are provided on an hourly rate basis. Product services are provided almost exclusively on a fixed fee basis. This is not surprising since the sale of a product and related support is typically a fixed dollar fee. For example, the sale of accounting software and related maintenance agreements would be charged to the client at some fixed dollar amount.

Interviews conducted with consultants from several of the Big Six firms revealed that they were increasing the number of fixed fee MAS relative to hourly rate MAS. Similar to Margheim and Kelley's (1992) audit results in the 1980's, the data of this study allows an investigation of whether a trend towards increased fixed fee billing arrangements occurred during the 1990's for MAS engagements. Based on grouping the MAS contracts by year, the percentage of fixed fee MAS relative to hourly rate MAS did not vary substantially from 1990 through 1994. Overall, 108 of the 249 MAS contracts examined (43 percent) were structured as hourly rate fees (Table 1). This percentage did not vary substantially over the five-year period investigated. Thus, it appears that a shift towards a greater percentage of fixed fee MAS contracts has not occurred in the 1990's. The initial interviews with practicing consultants appears to reveal the preferences of those Big Six firms, and not the Big Six in general.

Statistical Results

The following section presents the results of statistical tests. For comparison of three means in hypothesis one, analysis of variance (ANOVA) was used. Since hypotheses two and three require comparisons of two means, t-tests were used.

Tests of the Impact of Fee Structure

To test hypothesis one, a single factor ANOVA was applied to the satisfaction measures. Table 2, Panel A presents the ANOVA for differences in the means of perceived satisfaction with MAS contracted cost. There are no significant differences at an alpha level of 0.05 (p-value = 0.163). These results would indicate that h_1 cannot be rejected for the satisfaction with cost measure. From both the perspective of accounting firms and clients, it is good news that clients do not perceive significant differences in cost satisfaction among the three fee types.

Table 2, Panel B addresses ANOVA for differences in the means of perceived satisfaction with MAS quality. There are no significant differences in satisfaction with quality across the three fee types (p-value = 0.443). These results may indicate that clients see little difference in MAS quality between fixed fee and hourly rate engagements. This again is good news, especially for accounting firms. This result may confirm the profession's contention that MAS is of uniform high quality regardless of the fee structure employed. As previously suggested, both CPA firms and clients should find solace in these results. The results imply that firms do not significantly compromise quality according to fee type.

Tests of the Potential Effects of Cost Overruns

Table 3 presents the results of t-tests for differences in the means of fee increase versus no fee increase MAS.

As expected, client satisfaction with MAS cost was substantially reduced by subsequent fee increases. Unexpectedly, client satisfaction with MAS quality was also significantly reduced. As previously stated, Kubr (1995) contended that client perceptions of "value" may be very subjective. In this study, client perceptions of especially MAS quality may be obscured by their perceptions of cost fairness. A client that is upset by a large cost overrun may per-

Table 2
Effect of Fee Type on Satisfaction Measures

Panel A - Anova: Single Factor - Satisfaction with Cost

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Fixed Fee Range	85	450	5.294	2.829
Fixed Fee Dollar	56	324	5.786	1.590
Hourly Rate	108	586	5.426	2.247

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	8.405	2	4.202	1.828	0.163	3.033
Within Groups	<u>565.483</u>	246	2.299			
Total	573.888	248				

Panel B - Anova: Single Factor - Satisfaction with Quality

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Fixed Fee Range	85	475	5.588	2.912
Fixed Fee Dollar	56	327	5.839	2.174
Hourly Rate	108	630	5.833	1.411

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	3.420	2	1.710	0.817	0.443	3.033
Within Groups	<u>515.142</u>	246	2.094			
Total	518.562	248				

Table 3

Comparison of Fee Increase MAS with No Fee Increase MAS

Panel A			Panel B		
Comparison of Satisfaction with Cost Means			Comparison of Satisfaction with Quality Means		
t-Test of Increased Cost MAS Compared to MAS with no Cost Increase			t-Test of Increased Cost MAS Compared to MAS with no Cost Increase		
	<i>Fee</i>	<i>Fee Not</i>		<i>Fee</i>	<i>Fee Not</i>
	<i>Increased</i>	<i>Increased</i>		<i>Increased</i>	<i>Increased</i>
Mean	3.900	5.698	Mean	4.633	5.976
Variance	4.162	1.556	Variance	4.240	1.434
t Statistic	(6.187)		t Statistic	(4.721)	
P(T<=t) two-tail	0.000		P(T<=t) two-tail	0.000	
t Critical two-tail	1.975		t Critical two-tail	1.975	

ceive MAS quality as inferior when in fact it is not. A client's perception of low service quality may be almost as damaging to a firm's reputation as services that are actually substandard. T-tests of h_2 support the conclusion that client satisfaction with MAS cost and quality is significantly lower in instances where the final MAS cost is higher than the initial estimate (p-value = 0.000).

A potential confounding effect is that controllers in different companies may assess cost and quality differently. Some controllers may be strict in rating cost and quality satisfaction, while others may not be strict. To address this issue, a separate analysis of only those companies with MAS contracts that contained subsequent fee increases was performed. Base on these 134 contracts, the results were unchanged: client satisfaction with MAS cost and quality was still significantly lower when fees were subsequently increased. This suggests that lower satisfaction with MAS cost and quality is not due to particular controllers that may be more or less strict in assigning satisfaction assessments since the two groups (those with fee increases and those with no fee increases) were based on ratings assigned from the same respondent companies.

As further evidence of their impact on client dissatisfaction, the 30 contracts with cost overruns were examined in more detail. The magnitude of the increase was expressed in percentage terms and the contracts were arbitrarily placed into three groups. Table 4 reports mean satisfaction with cost for these three groups. As would be expected, the satisfaction dramatically

decreases as the magnitude of the fee change increases.

Several potential reasons for these cost overruns include: (1) unforeseen circumstances beyond the provider's control, (2) the scope of the work to be performed may not have been communicated or defined as clearly as it could have been, and (3) occasional underbidding. As previously stated, the questionnaire did not request information about the specific reasons for cost overruns. This study's results indicate the need for further research. At a minimum, accounting firms must be cognizant that fee increases during the project greatly reduce client satisfaction with the cost and quality of MAS provided.

Tests of the Effects of Joint Provision

To test hypothesis three, MAS were divided into two types: those performed by the incumbent auditor, and those performed by a firm other than the incumbent auditor. Table 5 presents the t-test results.

Client satisfaction with MAS quality is higher when services are provided by the incumbent auditor versus the non-incumbent auditor; however the difference is not statistically significant (p-value=.281). On the other hand, client satisfaction with MAS cost is significantly higher when services are provided by the incumbent auditor versus the non-incumbent auditor (p-value=.000). Unlike prior research, this result provides direct support for the contention that clients benefit from the joint provision of audit and MAS. Specifically, Big Six firms may accrue positive joint effects through "knowledge spillover" (Abdel-Khalik, 19-90) from performing the audit (i.e., increased understanding of EDP controls, the accounting system, and potential problem areas) that result in less MAS "start up time" and thus lower perceived

Groups based on size of fee increase	n	Mean Cost Satisfaction
Between 0% to 15% increase	12	5.000
Between 16% to 50% increase	11	3.727
Between 51% and 135% increase	7	2.286

Table 5

Comparison of Satisfaction with Incumbent versus Non Incumbent Audit Firm Conducting MAS

Panel A Comparison of Satisfaction with Cost Means			Panel B Comparison of Satisfaction with Quality Means		
t-Test of Incumbent Firm Compared to Non Incumbent Firm			t-Test of Incumbent Firm Compared to Non Incumbent Firm		
	<i>Non</i>	<i>Incumb</i>		<i>Non</i>	<i>Incumb</i>
Mean	4.735	5.640	Mean	5.551	5.800
Variance	2.824	2.041	Variance	2.961	1.879
t Statistic	(3.835)		t Statistic	(1.081)	
P(T<=t) two-tail	0.000		P(T<=t) two-tail	0.281	
t Critical two-tail	1.970		t Critical two-tail	1.970	

costs to the client. Thus, joint provision of audit and MAS appear to result in significant gains in MAS efficiency and to a lesser extent gains in MAS effectiveness. Even though this benefit was not measured directly, it is important that clients perceive a substantial benefit.

Based on the data collected from this survey, it is not possible to determine what specific factors lead to improved client satisfaction with MAS provided by the incumbent auditor. The survey was designed to test this phenomenon by asking respondents what factor(s) caused them to choose a different MAS provider (if applicable). However, the majority of complete respondents did not answer the questions on the last page of the questionnaire. The few who responded to this section indicated that either specialized expertise or lower cost were reasons for switching to different CPA firms.

Potential Self-Selection and Non-Response Bias

T-tests of mean annual sales and mean assets do not differ significantly between the responding firms and the non responding firms. This indicates a lack of self-selection bias in the responses received. Regarding non-response bias, Oppenheim (1966) indicates that late responders most closely resemble non-respondents. A comparison of early and late respondents resulted in insignificant findings. Perceptions of MAS cost and MAS quality (the focus of this

study) did not differ significantly. This indicates that the low response rate (10%) was not a likely cause of bias in the results. In one recent accounting study, a five and one-half percent response rate was acceptable due to insignificant differences between late and early respondents (Copeland and Harmelink, 1995).

Implications Of Findings

This study's results provide meaningful contributions to the existing literature and enhance the understanding of the auditor-client relationship in MAS engagements. This is the only known study to have investigated the relationship between perceived satisfaction with MAS costs and quality and fee structure. Instead of asking accounting firm partners their beliefs about client satisfaction with audit costs and quality (Margheim and Kelley, 1992), this study solicited responses directly from firm clients about their level of perceived satisfaction with MAS costs and quality. Unlike Palmrose (1986), this study separated MAS into the six SCS categories to obtain a finer measure of the types of MAS currently demanded and the primary suppliers of these services (Table 1).

Several factors of interest to the accounting profession, and to clients of these firms, were examined in this study. The findings and implications of this study are summarized in the following paragraphs.

At an alpha level of 0.05, there are no significant relationships between fee type and quality satisfaction measures. This augments the profession's view that MAS quality is unaffected by fee type. This suggests that, regardless of fee structure, MAS providers do not "cut corners", but instead provide uniform high quality services.

The type of MAS in highest demand appears to be advisory services. Consultations, product services and transaction services also appear to be in high demand. Although product services are the most costly MAS, they have the highest perceived satisfaction with MAS cost and quality. The fact that they are provided almost exclusively on a fixed fee basis may explain the relatively high cost satisfaction. Similar to the cost overruns results, the high MAS cost satisfaction for product services may be driving the high MAS quality satisfaction.

While previous studies have suggested a movement in the profession toward fixed fee *audit* contracts, such a trend is not evident in the MAS contracts of this study. The percentages for each fee type did not vary greatly over the period of this study (1990 to 1994). Also, the percentage of MAS hourly rate contracts appears consistent with the percentage of audit hourly rate contracts in the early 1980's.

While the data in this study do not permit a direct test of underbidding, the data does suggest that clients are much less satisfied with MAS when the final cost is higher than the initial estimate. Accounting firms should be advised that cost overruns may jeopardize client relationships and perhaps the professional stature of CPA firms.

Another important finding in this study is that clients are significantly more satisfied with MAS provided by the incumbent auditor. This would support the profession's view that clients benefit from such joint provision. However, it is interesting that clients are less satisfied with non-incumbent MAS since in most cases the client specifically sought out the non-incumbent firm

because of potential cost savings or specific area of expertise.


Suggestions for Future Research⁴

Directions for future research are suggested by this study. Since a significant decrease in client satisfaction with MAS cost existed when final costs exceeded initial estimates, additional research is needed to determine whether client satisfaction is affected by the reason for cost overruns. Cost overruns from scope changes are probably expected by a client. However, cost overruns that may result from underbidding may affect the client's perceptions in a negative manner.

Another direction for future research may be further study of the benefits of joint provision of services from the MAS side. Previous studies of joint provision focused on the potential benefits to the audit of the client. The results of this study indicate that clients perceive that joint provision results in significant MAS cost savings. A more direct test of whether MAS is conducted more efficiently and effectively when jointly provided could yield interesting results.

Also, a comparison of accounting firm consulting services to consulting services from other providers would be useful. Particularly, a comparison of client satisfaction with MAS provided jointly by an accounting firm to client satisfaction with consulting from non-accounting providers could be useful in determining whether there are in fact benefits to joint provision. Also, a comparison between accounting and non-accounting providers along fee types and cost overruns could provide interesting information.

This study focused on client satisfaction measures as these levels of satisfaction are of critical importance to the CPA firms as well as the client. However, research to determine whether there are standard quality measures that can be applied to MAS would be of benefit. Such measures have been developed for audit, but are more difficult for MAS since no two consulting engagements are exactly alike. Research

attempting to develop quality measures for MAS would at least give some information about whether it is possible to develop standard quality measures. 

Notes

1. When the data of this study are examined by MAS type, some cell sizes are too small to conduct meaningful statistical analysis. Therefore, only descriptive results are provided regarding MAS type.
2. Because of the homogeneous sample, company size (only the largest U.S. corporations) and MAS provider (only Big Six firms) were not expected to have a substantial influence on the MAS satisfaction measures. Specifically, company size has an insignificant correlation with the cost and quality measures (Pearson correlation = 0.07 and 0.03, respectively).
3. In addition, advisory service average revenues were among the highest of the six SSCS categories (\$1.2 million per project); implementation service average revenues were \$1.6 million, while product service average revenues were \$3.7 million. As expected, consultation, transaction, and support services average revenues were substantially smaller (\$170,000, \$447,000, and \$159,000, respectively).
4. The authors of this manuscript will make the data available to those who request the data. The data can be obtained by mailing, to either author, a 3½ inch diskette and indicating the data format requested. The data will be provided in either DBASE IV format or Microsoft Excel Version 5.0 format.

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