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DETERMINANTS OF AUDITEE ADOPTION OF AUDIT RECOMMENDATIONS: LOCAL GOVERNMENT AUDITORS' PERSPECTIVES

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ABSTRACT. This research determines the impact of local government's internal audit process on the audit client management's adoption of audit recommendations. Publicity of financial and operational problems in government in recent years has led to concerns about the quality of government audits, the extent of public managers' adoption of audit recommendations, as well as citizen demand for accountability in government. In spite of this, the importance of the government audit process in ensuring accountability has gained little attention in public management research. A survey of local government audit executives was conducted to determine various aspects of the local government internal audit process and their relationships with audit client management's adoption of audit recommendations. Results show that client management's adoption of audit recommendation is a function of auditor professional designation, due diligence, client relations, documentation and tracking of audit recommendations, as well as of follow-up audits to verify implementation of agreed-upon action plans.

INTRODUCTION

The problem of government's operational and financial control weaknesses has been plaguing many local governments for decades. Highly publicized financial problems in large city governments in the mid 1970s brought wide spread attention to the issue of government accountability. The attention was fueled by the then General

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Accounting Office study (GAO 1986), which revealed that 34 percent of the 120 audits examined were substandard. This finding raised concern as to the quality of government audits and the extent of management's implementation of audit recommendations. Although subsequent studies show improvement in the quality of government audits (Lowensohn & Reck, 2004; General Accounting Office, 1989), there remain concerns about audit processes and their impact on public managers' implementation of corrective actions to address the issues identified. For example, recent allegations of misappropriation of $12 million of funds in the Roslyn, New York district (Hevesi, 2005) resulted in the New York State comptroller's requesting a substantial increase in his audit budget as a proactive approach toward preventing further misappropriations of school funds.

The financial problems in government in recent years have also motivated citizens to place intense pressure for accountability on governments, government-owned entities and their elected officials. Legislative bodies, on behalf of citizens and other stakeholders, act as principals that impose standards and procedures on managers of public organizations that act as their agents. Where principals believe agents may be acting in their own self-interests, the principals may require monitoring techniques and more credible audit reports as a means of justifying their actions (Rainey, 1983) and ensuring accountability. As noted by Sinason (2000), if the cost of such monitoring is less than the cost of punitive actions taken by principals when uncertainty exists regarding the validity of the agents' assertions, then agents will select monitoring as a means of maximizing their overall compensation.

The worthiness of monitoring, such as an internal audit, to the principals depends not only on the quality of the audit process but also on the extent to which client management adopts the audit recommendations to improve the adequacy and effectiveness of internal controls over governmental operations. Therefore, the purpose of this research is to determine, from internal auditors' perspectives, the impact of the local government audit process on audit client management's adoption of audit recommendations. For the purpose of this research, the audit process is broadly defined here to include dimensions of auditor due professional care (e.g. performing risk assessment of areas audited), independence (e.g. auditor reporting to a body outside of area audited), quality control (e.g. supervision and review of staff auditor's work) and client relations (e.g. reporting audit findings to client management before final decision). Internal controls refer to the measures designed and implemented by the public sector manager to help accomplish the entity's goals and objectives, and to mitigate operational and financial risks. Audit client management refers to the public management team whose areas or programs are audited (auditee) and to whom audit recommendations are issued.

BACKGROUND

Research on auditing in the public sector has little noted the audit process from the perspective of internal audit. Various scholars have studied comparative accounting and auditing for local governments (Giroux, Jones, & Pendlebury, 2002), compliance reporting decisions in municipal audits (Kidwell 1999), the timeliness of school district audit (Carslaw, Mason, & Mills, 2007), and the emergence of performance auditing as the activist auditor (Wheat, 1991). Others have investigated the determinants of audit quality in the public sector (Deis & Giroux, 1992), ethical implications of independent quality auditing (Walters & Dangol, 2006), and the determinants of perceived audit quality and auditee satisfaction in local government (Samelson, Lowensohn & Johnson, 2006). These studies on audit quality have concentrated on the work of external auditing firms, have used proxies to measure audit quality and have considered quality to be related to attributes such as firm size (Shockey &Holt, 1983), extent of litigation (Palmrose, 1988), premium fees (Copley, 1991), and investment in firm reputation.

In their research of private sector audit quality, Schroeder, Solomon and Vickrey (1986) surveyed audit committee chairs and audit partners to determine their perceptions of audit quality. Carcello, Hermanson and McGrath (1992) also surveyed Big 6 auditors, Fortune 1000 controllers and sophisticated financial statement users regarding attributes of audit quality. Both studies found that factors associated with audit teams have greater influence on perceived audit quality. Behn, Carcello, Hermanson and Hermanson (1997) examined the effects of audit quality factors on auditee (audit client) satisfaction in the private sector. More recently, Samelson, Lowensohn and Johnson (2006) extended these studies to the external governmental audit by examining audit attributes that influence government finance officers' perceived audit quality and auditee satisfaction.

A common thread that runs through the above-mentioned studies is that perceived audit quality is significantly influenced by auditor characteristics such as industry expertise, responsiveness to client needs, exercise of professional due care, conduct of field work, exercise of professional skepticism (Carcello, Hermanson & McGrath, 1992; Samelson, Lowensohn & Johnson, 2006). Additionally, auditor industry expertise, auditor responsiveness to client needs, audit manager involvement and conduct of fieldwork do significantly influence auditee satisfaction (Behn, Carcello, Hermanson & Hermanson, 1997; Samelson, Lowensohn & Johnson, 2006). Although these studies make significant contributions to the literature on perceived audit quality, none of them focuses on the internal audit regarding the effect of the audit process on auditee adoption of audit recommendations.

This research seeks to expand existing knowledge on the influence of perceived audit quality on auditee satisfaction by focusing on the government's internal audit process, and by investigating the determinants of auditee adoption of audit recommendations from internal auditors' perspective. This research focus is important because an internal audit provides more insightful information and recommendations about operational efficiency which could lead to savings and cost-effectiveness. Additionally, unlike in the private sector, the multiplicity of stakeholders in government agencies makes accountability an overriding issue. In fact, in a governmental setting, while perceptions of audit quality and auditee satisfaction are important, the translation of satisfaction and perceptions into auditee implementation of audit recommendations to improve internal controls is more significant given the need for public managers to be accountable to stakeholders and the general public.

Given government internal auditors' expertise in audit methodology, their insight into the internal control structure of the areas they audit, and their accumulated experience in dealing with their audit clients, an investigation of their perception of the audit process and its relation to audit client management behavior will help provide insight as to whether the internal auditors' perceived factors that drive client adoption of recommendations are similar to the determinants of auditees' perceived quality and satisfaction found by prior researchers. As concluded by Carcello, Hermanson and McGrath (1992), factors associated with audit teams have greater influence on perceived audit quality. In the following sections, I dwell on the literature on principal-agent relationship and the audit framework provided by Government Auditing Standards, to establish a theoretical foundation regarding the importance of audit process variables pertaining to independence, due professional care, quality control and client relations in influencing management adoption of audit recommendations.

THEORETICAL FRAMEWORK

Agency theory postulates that an organization consists of a nexus of contracts between the owners of economic resources (the principals) and managers (the agents) who are charged with using and controlling those resources (Jensen & Meckling, 1976, p. 308). The theory is based on the premise that agents have more information than principals and that this information asymmetry adversely results in moral hazard, and affects the principals' ability to monitor effectively whether their interests are being properly served by agents. It also assumes that principals and agents act rationally and that they will use the contracting process to maximize their wealth. Managers of public resources are agents who are charged with using and controlling the public resources, and are accountable to their principals for the resources provided to carry out government programs and services. These principals are both the citizens and other government officials, such as elected officials. This principal-agent relationship may significantly impact decisions of local, elected public officials to have internal audit departments to help monitor operations, ensure regulatory compliance and minimize mis-appropriation risks.

Public administration theory indicates that indirect benefits and lack of control over investments compel taxpayers to demand more accountability for their funding, and also directs auditors to require additional assurance regarding efficiency of operations, regulatory and procedural compliance, integrity of financial records, safe-guarding of assets and achievement of programmatic objectives. From agency- theory perspective, the citizens of a governmental jurisdiction usually find it more difficult than shareholders of private organizations to monitor and control the activities of public managers effectively because citizens are less cohesive and heterogeneous owners of resources than shareholders. Therefore, to counter the possibility of loss of confidence that stems from a loose ownership-control structure in the public management process, public managers may be more inclined to employ internal monitoring mechanism such as internal auditing and to use the services of an audit committee or some other monitoring body (Adams, 1994).

A government audit that objectively evaluates evidence could help minimize moral hazard by public managers, thereby providing credibility to the information reported by or obtained from the agent. In fact, the work of the government internal auditors in safeguarding the interest of the citizens or legislature is strengthened if the audit process is based on adherence to applicable standards. The Government Auditing Standards (1999) place responsibility on auditors to ensure that (a) audits are conducted by personnel who collectively have the necessary skills, (b) independence is maintained, (c) due diligence is maintained by following applicable standards in planning, conducting and reporting the audit, (d) the audit entity has an appropriate internal quality control system in place, and (e) the audit entity undergoes periodic internal quality control reviews.

Government internal auditors will better be able to prevent public managers from taking advantage of the incohesive ownership-control structure of public organizations if those auditors have the requisite skills to perform their duties. The skills requirements by the auditing standards (e.g. Government Auditing Standards, 1999 Section 3.3-3.6) imply that staff assigned to conduct audits should collectively possess adequate professional proficiency for the tasks required. Such proficiency includes knowledge obtained through formal education, professional certification, continuing professional education and training as well as experience on the job. The implication here is that possession of requisite qualifications will enable auditors to be competent. Bonner and Lewis (1990) differentiated four types of knowledge as germane to auditing tasks: general domain knowledge, subspecialty knowledge, world knowledge and general problem solving ability. Ashton (1991) surveyed auditors with subspecialty knowledge for error frequency in their industries and found a strong relationship between subspecialty experience and accuracy. In a review of audit quality assessments made by the United States Regional Inspectors General, Aldhizer, Miller and Morgalio (1995) found that industry specialization was associated with fewer violations of Generally Accepted Government Auditing (GAGAS) reporting standards. O'Keefe, King and Gaver (1994) also found fewer compliance reporting violations among governmental specialists in audits of California school districts.

Meixner and Welker (1988) conducted an experiment to investigate which type of experience led to expertise, as measured by judgment consensus. The researchers found that total audit experience did not result in higher consensus. In contrast, a significant consensus was found to be associated with increased organizational experience. Knowledge about governmental audits, coupled with formal education and professional training enables the audit team to better understand the internal control structure, and perform quality fieldwork by designing and performing appropriate audit test, and by providing value-added recommendations, thereby facilitating acceptance and implementation of those recommendations. This will then help the agent/public manager demonstrate to the principal that the public resources are being judiciously utilized. Therefore, I hypothesize that there is a positive relationship between governmental audit experience, as well as auditor qualifications such as professional designation and college degree, and a public manager's acceptance and implementation of audit recommendations.

Agency theory predicts that an organization with a loose ownership-control structure may put in place control mechanisms to prevent agents from adversely influencing monitoring mechanisms to suit their self-interests (Adams, 1994). For example, a government legislature may try to prevent public managers from curtailing the scope of the internal audit function or rejecting internal auditors' recommendations by ensuring that the role and responsibilities of the internal audit are mandated in an audit charter, and that the head of the internal audit maintains independence by reporting directly to the legislature or audit committee. Auditor independence also includes the auditors being organizationally located outside of the staff or the line management function under audit, and refraining from making management decisions in the areas they audit (Government Auditing Standards, 1999). Auditors who are independent in all matters relating to their audit work are more likely to draw objective conclusions from audit evidence and have their recommendations adopted by audit client management. Based on this reasoning, a positive relationship between governmental auditors' independence attributes, such as reporting structure, and audit client management's adoption of audit recommendations can be expected.

Agency theory postulates that there is an information asymmetry problem in the public bureau which hinders principals from effectively monitoring the opportunistic behavior of agents. Government internal auditors can minimize the afore-mentioned problem through the exercise of due professional care in the audit process. This includes understanding the risks in the client's operations by interviewing management and personnel, reviewing policies and procedures, using sound judgment to select the audit methodology, using the acquired information to analyze the risks inherent in the client's operations, and developing risk-based audit programs for audit tests. Deficiencies found during audit tests are brought to the attention of the audit client manager to ensure the audit team has been provided with all relevant facts. At the end of the field work, the audit team reviews audit findings with the audit client manager prior to issuing the audit report at the exit conference. The above processes pertaining to due diligence, if followed, minimize the risk of the audit client rejecting the audit findings and recommendations. Therefore, one would expect a positive relationship between auditor risk assessment for each audit project, client relations activities such as learning of the client management risk perspective, briefing client management in the course of the audit, discussing findings with client management prior to issue of the final report, and audit client management's adoption of audit recommendations.

Quality audits can potentially aid the public manager in fulfilling his or her obligation through enhanced accountability and the safeguard of public assets. Government Auditing Standards require auditors to have appropriate quality control systems in place, and to undergo external quality control review. The essence of quality control is that it helps to solidify the due professional care of auditors through assurance that appropriate policies and procedures are followed in minimizing opportunistic behavior. Therefore, an internal quality control system should provide reasonable assurance that the audit entity has adopted and is following applicable auditing standards, and has established and is following adequate internal audit policies and procedures.

Internal quality control is implemented by ensuring that there is supervision of audit work through review of work papers, that auditors are appropriately trained, and that there is periodic independent review of completed work papers for compliance with standards, policies and procedures. External quality control is achieved through periodic external peer review, and correction of any deficiencies noted by the external reviewer. Properly implemented and enforced, an audit quality control system helps to minimize audit errors, enhance impartial conclusions from audit evidence and ensure issuance of accurate audit reports, thereby facilitating audit client management adoption of audit recommendations. Therefore, we should expect a positive relationship between review of audit staff work for accuracy, external peer review and the audit client management's adoption of audit recommendations.

METHODOLOGY

This research is in the form of survey research. A survey was sent to 387 audit department heads of the Association of Local Government Auditors (ALGA) and 46% of them returned the survey. It was conducted in the period June 2008 through October 2008. Audit department heads were chosen as the unit of analysis because by virtue of their chosen profession, auditors have responsibility for exercising due professional care, independence and quality audit work. Additionally, they are in a better position to provide objective assessment of the risks inherent in their clients' operations and to understand client management's motivations to accept and implement audit recommendations. Among those who participated in the study, 89% were audit directors and managers and the rest had other titles. Fifty percent had staffing level of up to 5 auditors, 32% had from 6 to 10 auditors and 18% had more than 10 auditors. Of the returned surveys, 75% were from municipalities, 23% from counties and 2% from other local governments. Jurisdictions of all sizes were represented, with 50% of the cities having population of less than 100,000 and 80% of the counties having population of more than 500,000. The survey questionnaires were designed to measure variables in each of the following broadly defined audit process categories: auditor qualifications, independence, exercise of due professional care, quality control and audit client relations; as well as the relationships of those variables with audit client management adoption of audit recommendations. The survey consisted of several sections which measured several variables in each of the audit process categories. Table 1 provides a summary of the variables.

TABLE 1
Summary of Dependent and Independent Variables

Variable Name	Operational Definition
Dependent Variable	
Audit Client Management's Adoption of Audit Recommendations	Auditors enjoy audit client management buy-in for all audit recommendations, and the latter provides documented action plans for all audit findings and implements all documented findings within deadlines.
Independent Variables	
Auditor Qualification Category	
Educational Background	Percentage of audit staff that possess college degree.
Professional Designation	Types and number of certifications possessed by the audit staff. e.g., CPA, CIA, CISA, CGA.
Auditor Experience	Average number of years of government auditing work performed by staff.
Independence Category	
Reporting Structure	Oversight body to whom auditors report. e.g., audit committee, legislature, city manager. (Other attributes measured but not regressed include consulting service and management decisions).
Due Professional Care Category	
Government-Wide Risk Assessment	Auditors perform government-wide risk assessment to determine auditable areas.
Project Risk Assessment	Auditors identify, analyze and evaluate risks for each area audited.
Risk-Based Audit Program	Auditors consider operational risk in program development for audit tests.
Issue Tracker	Auditors document audit findings in issue tracker for follow-up.
Audit Follow-Up	Auditors perform follow-up of all deficiencies identified in audits to ensure action plans have been implemented.
Timeliness of Follow-Up	All follow-ups are performed within six months to one year of audits.

TABLE 1 (Continued)

Variable Name	Operational Definition
Quality Control Category	
Supervision of Audit Work	Auditors are supervised and their work papers are reviewed for accuracy and compliance with procedural requirements.
Peer Review	Audit department has gone through peer review within the last five years.
Client Relations Category	
Client Risk Perspective	Auditors learn of client management risk perspective prior to audits.
Audit Client Briefings	Auditors communicate audit findings to client management prior to conclusion.
Client Review of Draft Report	Client management review draft audit report prior to finalization.
Mandate Category	
Mandated Audit Charter	Local government legislature has mandated an audit charter that spells out the roles and responsibilities of the audit department.
Audit Roles Passed into Law	The roles and responsibilities of the audit department have been clearly spelt out to audit client management.
Span of Audit Authority	Audit has the authority to audit all operational areas of government.

The variable name column shows the variables measured in each category and the operational definition column contains statements regarding how each variable was operationalized. For example, Educational Background was operationalized by the percentage of audit staff with college degrees. This variable was measured by asking respondents to select from a list of ranges, the percentage of their audit staff that possess college degrees. Professional Designation was measured by asking respondents to choose from a list of certifications that their auditors possess, and Audit Experience was measured by asking respondents to select the range of years of government auditing experience that best matches their audit staff's experience. Frequency distribution was used to analyze the data in the auditor qualifications category.

In the independence category, Reporting Structure was measured by asking respondents to select from a list of oversight bodies to whom their audit departments report. Consulting Services and auditor involvement in client management's decisions were measured by asking respondents to indicate on a seven point scale their agreement or disagreement with the statements that auditors provide consulting services to the areas they audit; and auditors make management decisions in the areas they audit. Frequency distribution was used to analyze the data in the independence category.

The variables in the due professional care category were measured by asking respondents to indicate their agreement or disagreement on a seven-point scale to the operational definition statements for each variable. The variables in quality control categories were measured using the same measurement scale and criteria. Descriptive statistics showing the mean scores were used to analyze the professional due care and quality control data. In the audit client relations category, Client Risk Perspective, Audit Client Briefings, and Client Review of Draft Report were measured on a seven point scale by asking respondents to state their agreements and disagreements to the operational definition statements respectively. These variables also reflect the exercise of professional due care. Descriptive statistics showing the mean scores were used to analyze the client relations data.

The variables in the mandate category were added as control variables. They were measured on a seven point scale by asking respondents to indicate their agreements and disagreements with the operational definition statements for each variable. Details about the control variables are provided in data analysis in the audit findings section. The dependent variable of interest - Audit Client Management's Adoption of Audit Recommendations – was operationalized by management's buy-in for all audit recommendations, client management documentation of action plans for all audit findings, and also implementation of the action plans within deadlines. The variable was measured on a seven-point scale by asking respondents to indicate their agreement and disagreement to the operational definition statements. Linear regression was used to analyze the relationship between the dependent variable and the independent variables shown in Table 1. The model coefficients, showing the proportion of the dependent variable explained by each independent variable, were discerned from the regression results.

RESEARCH FINDINGS

Reliability analysis was performed to determine the extent to which the variables measured were free from error and therefore yield internal consistency. Nunnally (1978) and Churchill (1979) suggest that constructs with a coefficient alpha equal to or greater than 0.70 have adequate internal consistency. The Cronbach coefficient for all the variables measured had an alpha coefficient above 0.768.

Auditor Qualifications

Table 2 shows the percentage of respondents who indicated the percentage ranges of their audit staff with college degrees. The key information from this table is that almost all respondents said their staff members have college degrees. Indeed, 88% of respondents indicated between 81% and 100% of their staff have college degrees, and therefore possess basic qualifications for audit work.

TABLE 2
Percentage Range of Respondents' Audit Staff with College Degrees

Variable Measured - Percentage with College Degrees	Frequency	Percent
0%	2	1
1%-20%	2	1
41%-60%	4	2
61%-80%	14	8
81%-100%	156	88
Total	178	100

The key finding shown in Table 3 is that 97% of respondents indicated their audit staff members have professional designations, with 71% saying their staff members have two or more professional designations. The possession of professional designation in accountancy and/or auditing demonstrates one's preparedness in terms of the knowledge, training and skills needed for audit work. Other analysis performed revealed that on average, the survey respondents' auditors have 10 to 15 years of audit experience in a governmental setting. Together with audit experience, professional

TABLE 3
Percentage of Survey Respondents' Audit Staff with Professional Designations

Variable Measured - Type of Professional Designation	Frequency	Percent
No Professional Designation	6	3
Certified Government Auditor Only	2	1
Certified Internal Auditor Only	2	1
Certified Public Accountant Only	22	13
Other Designation	20	11
Two or More Designations	126	71
Total	178	100

designation could enable an auditor to command respect in the eyes of the audit client, and could facilitate discussions with the client during the audit process.

Auditor Independence

The reporting structure shown in Table 4 details the oversight bodies to whom respondents' audit departments report. An important finding indicated by the table is that almost all the oversight bodies to whom the respondents' department report are either heads of governmental entities or the legislature.

According to Table 4, 28% of respondents said their departments report to the audit committee, 28% report to the city council, 15% to

TABLE 4
Reporting Structure of Survey Respondents in Percentages

Variable Measured – Body To Whom Audit Reports	Frequency	Percent
Audit Committee	50	28
Chief Financial Officer	12	7
Chief Administrative Officer	6	3
Mayor	10	6
City Manager	24	13
City Council	49	28
County Commission	27	15
Total	178	100

The county commission and 16% to the city manager/chief administrative officer. Together, these represent 87% of the audit departments out of the 178 whose executives responded to the survey.

The findings mean an overwhelming majority of the audit departments comply with the independent reporting structure required by the auditing standards. Additional analysis also revealed that while the audit executives who responded to the survey *Somewhat Agreed* that their departments provide consulting services to their audit clients (mean score – 4.66 out of a possible highest score of 7), they also strongly disagreed that that their auditors make management decisions in the areas they audit (mean score = 1.81), suggesting minimal conflict of interest from auditors' perspective.

Due Professional Care and Quality Control

Table 5 details the mean scores of respondents' degree of agreements to the statements pertaining to due professional care and quality control on a 7 point scale. For due professional care, the table shows the survey respondents S*trongly Agree* that their auditors perform risk assessments of all areas audited (means score = 6.03) and consider operational risk in audit program development (mean score = 6.15). The exercise of audit due diligence is partly dependent on the quality of audit performed and external peer quality reviews. Table 5 shows that respondents *strongly agree* that their staff auditors' work is reviewed for accuracy and compliance with audit procedural requirements and applicable standards (mean score = 6.19). Another research finding not indicated in Table 5 revealed that 43% of respondents' audit departments have gone through external peer quality review within the last five years as of the date of the survey. Given these results, it can be argued that in general, the local government auditors who responded to the survey believe the degree of professional due care and quality control exercised by local government auditors is strong. However, the findings also suggest that the auditors are not too keen on maintaining an issue tracker to enable them to document control weaknesses identified in their audits (mean score = 4.92) and to follow-up on recommendations. Furthermore, while they perform follow-up audits to ensure audit recommendations are being implemented (mean score = 5.83), they seem indifferent regarding the timeliness of follow-up audits (mean score = 4.81).

Client Relations

Table 5 shows the auditors learn of audit client managers' risk perspectives prior to audit (mean score = 6.17); the auditors communicate findings to audit clients prior to final decision (mean score = 6.36); and have their audit client management review draft reports prior to finalization (mean score – 6.65). These results suggest that in general, the auditors follow prudent methodology to understand the clients' operations and the risks inherent in those operations to determine the appropriate types of audit tests to be performed. Additionally they ensure the validity of the audit evidence gathered through communication with client management, thereby minimizing potential disagreements. However, Table 5 also shows that despite the auditors' efforts and the apparent good working relations described above, the degree of enthusiasm with which audit client management adopts audit recommendations is low. While the audit executives *Agree* that their auditors enjoy client management's buy-in for all audit recommendations issued (mean score = 5.94), they only *Somewhat Agree* that their audit clients provide documented action plans to address audit control weaknesses communicated in their audit reports (mean score = 5.48), and are basically Neutral, implying they neither agree nor disagree, as to whether their audit client management implements all action plans within agreed-upon deadlines (mean score = 4.53).

Audit Process and Client Management's Adoption of Recommendations

Based on the above findings, the question that comes to mind is what dimensions of the audit process influence client management's adoption of audit recommendations issued by the local government's internal auditors? In order to answer this question, it was appropriate, to determine through regression analysis, whether there is a statistically significant relationship between the dependent variable of interest – Client Management's Adoption of Audit Recommendations – and the dimensions of due professional care, independence, quality control and client relations. Given the possibility of a codified span of the internal audit's authority, audit's roles and responsibilities, and audit charter to influence the audit client management's adoption of audit recommendations (Adams 1994), and thus confound the results, these variables (Mandated Audit Charter, Audit Roles Passed Into Law, Span of Audit Authority) were included as exogenous, extraneous variables.

TABLE 5
Mean Scores of Respondents' Agreements to Variables Measured
(N =163)

Variables Measured – Audit Activities and Client Management Actions	Mean	Std. Deviation
My department performs government-wide risk assessment to identify auditable areas for the audit year.	5.40	1.782
My department identifies, analyzes and evaluates risks, and related controls for each area audited (audit project).	6.03	1.049
My auditors learn of client operations and management risk perspective before audits.	6.17	.907
My department reviews and considers operational risk in program development.	6.15	1.017
My staff auditors are supervised and their work is reviewed for accuracy.	6.19	1.176
My auditors communicate findings to the client prior to final decision.	6.36	.968
My audit client management reviews the draft report prior to finalization.	6.65	.893
My auditors enjoy audit client management's buy-in for all audit recommendations.	5.94	1.246
My audit client management provides documented action plans for findings.	5.48	1.538
My audit client management implements all documented action plans within agreed-upon deadlines.	4.53	1.358
My auditors maintain an issue tracker to follow-up on all recommendations.	4.92	2.035
My department performs follow up audits in areas where control weaknesses were detected.	5.83	1.131
All follow up audits are performed within 6 months to one year after the initial audits.	4.81	1.725

Another issue that potentially could explain client management's implementation of audit recommendations is auditor qualifications. For example, as noted by Aldhizer, Miller and Morgalio (1995), the auditors' knowledge of government operations enhances compliance with GAGAS reporting standards. For this reason, the dimensions of auditor qualifications were also included as independent extraneous variables. Kerlinger (1986) noted that a potential extraneous variable can be controlled by including it as another attribute, an observed variable, in the study. By considering the extraneous variables in their own right, I was able to determine how they interact with the independent variables of interest and the extent to which they influence Client Management's Adoption of Audit Recommendations, either individually or in combination with the independent variables of interest.

Table 6 and Table 7 show the overall significance of the model. As illustrated in Table 6, the probability of F statistic ($P>F$) is 0.000 and the R Square is 0.632. This implies that there is a statistically significant relationship between Client Management's Adoption of Audit Recommendations and the overall linear combination of the eighteen independent variables. A closer review of Table 7 reveals that Client Management's Adoption of Audit Recommendation is a function of variables such as Professional Designations ($P = 0.041$), Project Risk assessment ($P = 0.006$), Client Risk Perspective ($P = 0.011$), Issue Tracker ($P = 0.001$), and Follow-Up Audits ($P = 0.031$). These findings support the hypothesis that there is a positive relationship between the dependent variable and the five independent variables - auditor professional designations, auditor assessment of inherent risk in client operations for the areas audited, auditor understanding and consideration of client management's risk perspective in the audit process, the maintenance of issue tracker for

TABLE 6
Analysis of Variance Showing Overall Sum of Square Significance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	75.885	18	4.216	6.693	.000[a]
Residual	44.092	70	.630		
Total	119.978	88			

TABLE 7
Overall Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.406	1.227		-1.146	.256
College Degree	.213	.157	.106	1.353	.180
Professional Designations	.125	.060	.182	2.084	**.041**
Audit Experience	-.082	.055	-.116	-1.501	.138
Reporting Structure	.004	.040	.007	.093	.926
Mandated Audit Charter	.046	.261	.016	.178	.860
Audit Roles Passed into Law	.137	.207	.057	.664	.509
Span of Audit Authority.	-.221	.315	-.060	-.700	.486
Peer Review	-.059	.032	-.164	-1.877	.065
Risk-Based Audit Program	-.295	.156	-.257	-1.886	.063
Govt. Wide Risk Assessment	-.073	.061	-.112	-1.202	.233
Project Risk Assessment	.384	.136	.345	2.816	**.006**
Client Risk Perspective	.323	.123	.251	2.614	**.011**
Audit Client Briefings	.022	.112	.018	.194	.847
Supervision of Audit Work	.072	.083	.073	.870	.387
Client Review of Draft Report	.013	.117	.010	.108	.915
Issue Tracker	.188	.054	.328	3.463	**.001**
Follow-Up Audits	.243	.110	.235	2.200	**.031**
Timeliness of Follow-Up Audits	.060	.065	.088	.923	.359

documenting audit findings and tracking resolution of recommendations, and follow-up audits to ensure the control weaknesses identified have been addressed. Thus the R Square value of 0.632 indicates that 63% of the variation in client management adoption of audit recommendations is affected by these five variables.

DISCUSSION

The research findings reveal that in general, local government auditors whose executives responded to the survey possess the necessary skills and knowledge required for their work. An important finding is that although there are associations between client management adoption of audit recommendations and audit experience, college degree, as well as professional designation, only the association with professional designation translates into a statistically significant relationship (P = 0.041). This implies that although audit experience and college degree are important in facilitating audit client agreement with auditors on recommendations, client management's adoption of the recommendations is not as severely constrained or enhanced by audit experience and a college degree as it is by the possession of professional certification. The above findings seem to confirm the work of Bonner and Lewis (1990) that in addition to general domain knowledge, subspecialty knowledge is germane to audit work. This is because as the research result implies, total government auditing experience does not necessarily equate the knowledge gained from auditing specific operations of government such as accounting or budgeting. The results also imply that agent/public managers whose areas are audited appear comfortable accepting and implementing recommendations to fulfill obligations to their principals if those recommendations are issued by auditors who are known to have successfully completed professional training. Perhaps, this is the case because the agent/public managers are better able to convince their principals about the value of recommendations to be implemented in safeguarding public resources if those recommend-dations have the fingerprints of credible and professionally trained auditors.

The research results also reveal client management's adoption of audit recommendations is strongly influenced by professional due diligence such as the auditor's assessment of risks inherent in the client' operations to determine the areas of appropriate audit tests (p = 0.006 for Project Risk Assessment), as well as the client relations activity such as learning and taking into account the client management's perception of risks in their operations (p = 0.011 for Client Risk Perspective). These results are not surprising, as the audit client manager and his or her team who are involved in the daily operations of the area have more insights of those operations. Additionally, no meaningful audit could be performed without an understanding of the area to be audited, and without working with those manning the operations. These findings also appear consistent with the results of prior studies (Carcello, Hermanson & McGrath, 1992; Samelson, Lowensohn & Johnson, 2006) that perceived audit quality is significantly influenced by auditor characteristics such as due professional care, and responsiveness to client needs. Thus, government's internal auditors' perceived factors that drive client adoption of recommendations appear the same as the two determinants of auditee's perceived quality found by prior research on external audits. In exercising due professional care through understanding of the risks inherent in the agent/public manager's operations, government auditors play a key role in the principal-agent relationship by not only monitoring opportunistic behavior of the agent, but also by minimizing information asymmetry between the two parties through the issuance of reports to the principals.

According to the research results, government auditors' documentation and tracking of audit findings and recommendations, as well as follow-up audits performed to ensure agreed-upon action plans are implemented, are significantly related to client management's adoption of audit recommendations ($p = 0.001$ for Issue Tracker; and $p = 0.031$ for Follow-Up Audits). The findings support and extend the arguments of Adams (1994) regarding the internal audit as a monitoring mechanism in relation to principal-agency theory. As argued by Adams, the heterogeneous ownership of government resources and information asymmetry make control of the agent/manager's activities difficult. Therefore, a monitoring mechanism like an internal audit helps to counter loss of confidence in the public management process. The research findings suggest the significance of the internal audit monitoring role lies in the fact that agent/public managers are more inclined to implement audit recommendations to address weaknesses identified in the course of the audit, and enhance public accountability, as long as government auditors document, track and follow-up to verify management's actions on those recommendations.

The research findings also reveal that local government auditors generally maintain independent reporting structure and exercise quality control over their audit work. These findings are also consistent with the arguments by Adams (1994) in that although they do not significantly influence client management's decision to adopt audit recommendations, they do help minimize the possibility of the agent/public manager's influence on the internal audit monitoring activities for individual self-interest.

This study did not include the audit client management's perception of governmental internal audit quality, as well as the relationship between the nature of recommendations and audit client management adoption of audit recommendations. Additionally, it does not include the influence of the size of the audit function and audit budget on the quality of the audit performed and the degree of due diligence maintained in the audit process. Furthermore, the effect of audit frequency on client management's adoption of audit recommendations was not included in this study. Further study is required to determine whether audit size and audit budget impact the governmental internal audit's quality and due diligence, and whether audit frequency impacts client management's acceptance and implementation of audit recommendations. Additionally, a future review of auditee perception of the quality of government's internal audit process, as well as the relationship between the nature of recommendations and client management adoption of recommendations will be appropriate.

CONCLUSION

Overall, the findings from this research suggest that many of the government's internal auditors' perceived factors that drive client adoption of recommendations are the same as the determinants of auditee perceived quality found by prior research on external audits. Additionally, the findings suggest that in general, when government internal auditors take the time to understand the risks in the areas they audit, use the knowledge of the risk as a guide in their audit tests, and also communicate with client management to obtain their perspectives on operational risks, the latter tends to appreciate such gestures and respond favorably to audit recommendations. Furthermore, to help fulfill their agency obligations and be accountable to their principals, audit public managers tend generally to act on recommendations issued by auditors known to have recognized professional qualifications, as well as those recommendations documented, tracked and followed-up by auditors.

The findings from this research have theoretical and practical implications for public management. From a theoretical perspective, the findings suggest that through documentation and monitoring of control weaknesses and related recommendations, and reporting of audit findings to oversight bodies, government internal auditors could play a key role in the principal-agent relationship by minimizing information asymmetry and moral hazard, thereby helping public managers to fulfill their obligations to citizens and elected officials. From a practical perspective, client management adoption of audit recommendations as a result of auditors' tracking and monitoring those recommendations will help to enhance public accountability in the public management process. Therefore, local government's internal auditors should improve the documentation, monitoring and follow-up of client resolution of audit findings and recommendations in order to strengthen public accountability.

REFERENCES

Adams, M. B. (1994). "Agency Theory and the Internal Audit." *Managerial Auditing Journal*, *9*(8): 8-12.

Aldhizer, G. R., Miller, J. R., & Moraglio, J. F. (1995). "Common Attributes of Quality Audits." *Journal of Accountancy*, *17*(1): 61-68.

Ashton, A. H. (1991). "Experience and Error Frequency Knowledge as Potential Determinants of Audit Expertise." *The Accounting Review*, *66*: 218-239.

Behn, B. K., Carcello, J. V., Hermanson, D. R., & Hermanson, R. H. (1997). "The Determinants of Audit Client Satisfaction among Clients of Big 6 Firms." *Accounting Horizons*, *11*(1): 7-24.

Bonner, S. E., & Lewis, B. L. (1990). Determinants of auditor expertise. *Journal of Accounting Research*, *28* (Supplement): 1-20.

Carcello, J. V., Hermanson, R. H., & McGrath, N. T. (1992). "Audit Quality Attributes: The Perceptions of Audit Partners, Preparers and Financial Statement Users." *Auditing: A Journal of Practice and Theory*, *11*(1): 1-15.

Carslaw, C., Mason, R., & Mills, J. R. (2007). "Audit Timeliness of School District Audits." *Journal of Public Budgeting, Accounting and Financial Management*, *19*(3): 290-316.

Churchill, N.C. (1979). *Computer-Based Information Systems for Management*. Englewood Cliffs, NJ: Prentice Hall.

Copley, P. A. (1991). "The Association between Municipal Disclosure Practices and Audit Quality." *Journal of Accounting and Public Policy*, *10*: 245-266.

Deis, D. R., & Giroux, G. A. (1992). "Determinants of Audit Quality in the Public Sector." *The Accounting Review, 67*(3): 462-479.

Giroux, G., Jones, R., & Pendlebury, M. (2002). "Accounting and Auditing for Local Governments in the U.S. and the U.K." *Journal of Budgeting, Accounting and Financial Management*, *14*(1): 1-26.

Government Auditing Standards (1999). Government Accounting Standrads. [Online]. Available at www.google.com/search?q=Government+Auditing+Standards&btnG=Search&hl=en&rlz=1T4ADBR_enUS268US270&sa=2. (Retrieved, April 3, 2010).

Hevesi, A. (2005). *Roslyn Union Free School District Anatomy of a Scandal: Report of Examination*. [Online]. Available at www.osc.state.ny.us/localgov/audits/2005/schools/roslyn2.htm. (Retrieved March 17, 2009).

Jensen, M. C., & Meckling, W. H. (1976). "Theory of the Firm: Management Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics*, *3*(3): 305-360.

Kerlinger, F. N. (1986). *Foundations of Behavioral Research* (3rd ed.). New York: CBS.

Kidwell, L. A. (1999). "Compliance Reporting Decisions in Municipal Audits: The Impact of Budget Variance and Employment Sector." *Journal of Public Budgeting, Accounting and Financial Management*, *11*(3): 325-356.

Lowensohn, S., & Reck, J. (2004). "Longitudinal Analysis of Local Government Audit Quality." *Research in Governmental and Nonprofit Accounting*, *11*: 213-228.

Meixner, W., & Welker, R. (1988). Judgment Consensus and Auditor Experience: An Examination of Organizational Relations." *The Accounting Review*, *63*: 505-513.

Nunnally, J. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw Hill.

O'Keefe, T. B., King, R. D., & Gaver, K. M. (1994). "Audit Fees, Industry Specialization and Compliance with GAAS Reporting Standards." *Auditing: A Journal of Practice and Theory*, *13*(2): 41-55.

Palmrose, Z. V. (1988). "An Analysis of Auditor Litigation and Service Quality." *The Accounting Review*, *63*(1): 55-73.

Rainey, H. G. (1983). "Public Agencies and Private Firms: Incentives, Structures, Goals and Individual Roles." *Administration and Society*, *15*(2): 207-242.

Samelson, D., Lowensohn, S., & Johnson, L. E. (2006). "The Determinants of Perceived Audit Quality and Auditee Satisfaction In Local Government." *Journal of Budgeting, Accounting and Financial Management*, *18*(2): 139-166.

Schroeder, M.S., Solomon, I., & Vickery, D. (1986). "Audit quality: The perceptions of audit-committee chairpersons and audit partners." *Auditing: A Journal of Practice & Theory*, 5(2): 86-93.

Shockey, R. A., & Holt, R. N. (1983). "A behavioral Investigation of Supplier Differentiation in the Market for Audit Services." *Journal of Accounting Research*, *21*(2): 545-563.

Sinason, D. H. (2000). "The Study of the Effects of Accountability and Engagement Risk on Auditor Materiality Decisions in Public Sector Audits." *Journal of Budgeting, Accounting and Financial management*, *12*(1): 1-21.

U.S. General Accounting Office (1986). *CPA Audit Quality: Many Governmental Audits Do Not Comply with Do Not Comply with Professional Standards* (GAO/AFMD-86-33). Washington, DC: Author.

U.S. General Accounting Office (1989). *Single Audit Quality Has Improved But Implementation Problems Remain* (GAO/AFMD89-62). Washington, DC: Author.

Walters, J. E., & Dangol, R. (2006). "Ethical Implications of Independent Quality Auditing." *Asian Journal of Information Technology*, 5(1): 107-110.

Wheat, E. M. (1991). "Activist Auditor: A New Player in State and Local Politics." *Public Administration Review*, *51*(5): 285-392.