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A Review of the Impact of Client Trustworthiness On the Audit Decision-Making Process

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Questionable behavior affects audit strategy considerably more than satisfactory behavior. Mautz and Sharaf (1961) suggest that audit procedures should reflect the degree of risk associated with a client's financial statements whenever the auditor:

> [F]eels they [propositions in the client's financial statements] are questionable, he likely will apply more rigorous procedures . . . if he feels they are satisfactory, he may fall back on a 'minimum program'. (pp. 28-29)

Consequently, audit strategy is dependent on the level of risk from the firm's risk assessment process (Johnson, 1987). A key point in the detection of fraud, or any error, is the auditor's recognition of the signs that an error exists. The risk assessment process highlights the number of "red flags," such as areas of situational pressures, the opportunity to commit fraud, and personality factors of the person committing the fraud (Albrecht *et al.*, 1978). For example, audit staff members "consider very complex factors such as management integrity, the likelihood of management override, and control consciousness" (Janell and Wright, (1990). However, while auditors regressed toward the base rate data, the regression was not of the magnitude required given the description of a client's management (Joyce and Biddle, 1981). Additionally, studies from Australia (Van Peursem and Pratt, 1993), New Zealand (Kelly, 1991) and the United States

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(Chow *et al.*, 1987) all found that the evaluation of client integrity was perceived by auditors as one of the most difficult steps in the audit process.

This stream of research includes the use of various factors that might signal the possibility of the existence of client misstatements. For example, how auditors' perceptions of client trustworthiness influence auditors' use of differential audit tests and procedures. An outstanding example of the dire consequences of the lack of auditors' sensitivity to the potential of this type of fraud was the debacle at Enron in 2002 and the Bernie Madoff scandal in 2009. Each of these frauds resulted in a net loss to the investing public of over $60 billion; the loss in each of these frauds exceeds the gross national product of over 70 percent of the countries comprising the United Nations.

Bernardi (1994a) found significant differences in the fraud detection rate between audit seniors and managers. Ashton and Ashton (1988) found that auditors were prone to revise their beliefs given new information (i.e., effects for the order information was given and for the way the new information was presented). Bonner (1990) and Bernardi (1994b) found a significant difference between experienced and inexperienced auditors for cue selection. For example, while Pincus (1991) found that field-independent auditors were better at detecting fraud, Bernardi (1994a) noted that high moral development auditors (Rest, 1986) were more sensitive to the client integrity ratings.

Our study focused on the documented associations between the trustworthiness of an auditor's client (i.e., operationalized in many studies as client integrity) and various aspects of the audit environment, such as the client base of an auditor, the audit planning process, and auditor judgment. In our research, we reviewed 20 studies (Figure 1) that examined client

trustworthiness between 1987 and 2009. The data from these studies indicate that client trustworthiness has a strong influence throughout the audit process.

Client Trustworthiness

In this section of our research, we reviewed five articles (Table 1) that examined the basic issue of client trustworthiness. The first article (Apostolou *et al.*, 2001) examined the importance of the Statement on Auditing Standards (SAS) No. 82, which specified auditors' responsibility for fraud detection and reporting, any red flags suggesting the risk of management fraud, and material misstatements in the client's financial reports. The second article (Webber *et al.*, 2004) reexamined how forensic experts at Big Five firms assess the 25 risk factors that should be considered when assessing the likelihood of management fraud. The third article (Reckers and Wong-On-Wing, 1991) studied how auditors make inferences about management's motives and how these inferences impact audit decisions. The fourth article (Kerler and Killough, 2009) considered how auditors develop trust in a client and whether that trust affects audit decisions. The fifth article (Ponemon, 1993) investigated the impact of moral reasoning on auditors' ability to recognize critical management characteristics (i.e., integrity and competence) when assessing likelihood of material misstatement.

Risk Factors

Apostolou *et al.* (2001) used the Analytical Hierarchy Process (AHP) in a survey-type instrument to examine the relative importance of the red flags specified in Statement on Auditing Standards (SAS) No. 82. Ten versions of the research instrument were prepared in order to reduce response bias. Of the sample of 43 external auditors, 25 percent had been on a team when fraud was discovered and 74 percent reported being personally involved in discovering fraud.

Results indicate that the three red flags assessed as being most important were all within the management characteristics category and accounted for almost 40 percent of the total decision weight. The decisions models were similar for Big Five firm auditors, regional/local auditors, and internal auditors. However, Apostolou *et al.* found that a minority of external auditors weighed management characteristics and influence over the control environment red flags as being much less important than most other subjects. The authors suggest that auditors should be sensitive to the red flags related to management characteristics and influence over the control environment. However, auditors should not focus exclusively on these categories.

Webber *et al.* (2004) reexamined how forensic experts at Big Five firms assess the 25 factors specified in SAS No. 82 that auditors should consider when assessing the likelihood of management fraud. The authors used both statistical and subjective weights when computing correlations. While statistical weights were used to assess the relative importance of the fraud risk factors to the forensic experts (i.e., from Analytic Hierarchy Process), subjective weights were used to determine the forensic experts' assessment of relative importance across the 25 fraud risk factors. Webber *et al.* found that the category with the highest rating was "management characteristics and influence over the control environment" and the category with the lowest rating was "industry conditions". In regards to self-insight (consensus) among the forensic experts, 94 (96) percent of the correlations were significant.

Management's Motives

Reckers and Wong-On-Wing (1991) studied how auditors make inferences about management's motives for changes in accounting estimates and how these inferences impact audit decisions. Based on Jones and Davis' (1965) Theory of Correspondent Inference, the auditor considers the client's degree of choice, deviation from expected behavior, and the non-

common effects of alternative behaviors. Auditors have expectations that a client uses accounting practices consistent with others in the same industry and with past circumstances. The more a client deviates from the expected behavior, the more the auditor assumes the change can be attributed to the client's disposition. When an auditor's concern about management's motives increases, Reckers and Wong-On-Wing believe that an auditor's assessment of the risk of a material misstatement also increases. For example, the more suspicious an auditor becomes about a client's low integrity, the more skeptical the auditor should be about a whether a change in the rate used for estimating bad debt expense and allowance for doubtful accounts was made in good faith or as a way to artificially improve reported profit. Reckers and Wong-On-Wing found that auditors who believed the client to be of low integrity were significantly more concerned about management's motives. Management's inferred motives affected subsequent audit decisions about the perceived materiality and the likelihood of requiring an adjustment.

Kerler and Killough (2009) considered whether satisfaction with a client's management causes auditors to develop trust in a client and whether that trust affects audit decisions. It has been argued that over time auditors develop trust in the client, which then impairs auditors' professional skepticism. Kerler and Killough suggest that in an accounting context, trusting a client's management is an ethical decision if it comes with a risk of impairing auditors' skepticism. The authors found auditors' satisfaction with past experiences working with the client's management is positively related to trust in that client. Further, after an unsatisfying experience, auditors' trust in a client's management is negatively related to perceived fraud risk. However, after a satisfying experience, there is no relationship between trust and perceived fraud risk, indicating that auditors are able to maintain professional skepticism. Moral reasoning was not found to have an effect on trust in management. Additionally, auditors who have prior

experience detecting fraud were found to be more skeptical of clients when the experience with the client was unsatisfying.

Ethical Sensitivity and Risk Assessment

Ponemon (1993) investigated the impact of moral reasoning on auditors' ability to recognize critical characteristics of management's integrity and competence, which auditors are expected to recognize and consider when assessing likelihood of material misstatement. Ponemon notes that, when a client's managers have low integrity but high competence, managers should be more capable at concealing material misstatements. Auditors must be able to recognize these characteristics and consider them when assessing likelihood of fraud and audit risk. Ponemon suggests that the sensitivity to these management's integrity and competence should increase as an auditor's level of moral development (Rest, 1986; Kohlberg, 1969) increases. Ponemon found that competence and integrity were significantly related to audit risk. When integrity and competence were low, audit risk decreases as an auditor's level of moral development (as measured by the Defining Issues Test (DIT: Rest, 1979)) increases. However, when competence is high and integrity is low, audit risk increases as DIT score increases. Thus, auditors with high DIT scores were more sensitive to combinations of competence and integrity. Competence is more strongly related to audit risk for auditors with low ethical reasoning; however, auditors' sensitivity to integrity increases as ethical reasoning increases.

Client Base

In this section of our research, we reviewed three articles (Table 2) that looked into the building, maintaining, and possible termination of the auditor-client relationship and the possible factors that could influence auditor independence. The first article (Beaulieu, 2001) considered

three relationships regarding whether auditors in the audit planning stage compensate for low client integrity by adjusting extent of audit evidence and/or audit fees for prospective audit clients. The second article (Schroeder and Verreault, 1987) examined the importance of factors that might cause an audit withdrawal decision, including disagreements over audit fees, restricted scope, management integrity, disagreement over the application of GAAP, and disagreements over the audit report or opinion. The third article (Arnold *et al.*, 1999) delved into how clients might influence auditors' decisions because of the inherent consideration of the possible loss of audit fees if the client decides to find another auditor or because of former audit staff members who now work for the client (i.e., auditor independence issues).

Acquisition and Withdrawal Decisions

Prior research shows that auditors respond to risk by adjusting audit work. Beaulieu (2001) considered three relationships regarding whether auditors in the audit planning stage compensate for low client integrity by adjusting extent of audit evidence and/or audit fees. The relationships considered are judgments of client integrity and fraud risk, risk judgments and extent of evidence collected, and extent of evidence collected and audit pricing. Low source credibility indicates a higher likelihood that financial statements are materially misstated. Beaulieu found that judgments of client integrity were negatively related to assessments of business risk and combined risk. Fraud risk judgments were positively related to extent of audit evidence collected. Extent of evidence was positively related to recommended audit fees. Beaulieu considered the key finding to be that client integrity is negatively related to extent of evidence collected, implying that auditors are willing to compensate for low client integrity by increasing extent of evidence.

Schroeder and Verreault (1987) examined the importance of five factors that might cause audit withdrawal decisions. The factors included disagreements over audit fees, restricted scope, management integrity, disagreement over the application of generally accepted accounting principles (GAAP), and disagreements over the audit report or opinion. Each auditor was given the definitions of the five factors and 36 cases in which the factors were manipulated to determine the probability of the auditor withdrawing from the audit. Schroeder and Verreault found that all of the factors considered in the study were important in the audit withdrawal decision. Management integrity, which relates to the auditor's trust in the client, was the most important factor overall. While each of the factors was considered important by all firm sizes, there was a lack of consensus among individuals. For example, while auditors from large firms indicated management integrity was the most important consideration, auditors from small firms ranked it as fourth on their list of considerations. This finding suggests that the loss of a client is more damaging to a small firm than a large firm; consequently, small firms may be less likely to withdraw from an audit engagement.

Auditor Independence

Arnold *et al.* (1999) delved into whether the importance of factors associated with independence varies among countries, such as investor needs, client retention, and time budget pressures. Prior to the Sarbanes-Oxley Act (SOX, U.S. Congress, 2002), a major concern regarding client relationships occurred when an auditor leaves to work for the client. Prior research also indicates that cultural differences can cause auditors from various countries to have different perceptions and interpretations of data. Hofstede (1991) suggested that individuals within a country might not have the same response, but it will occur more often within each

culture. Litigation also has been found to influence decisions concerning audit fees and procedures.

Arnold *et al.* found that, as a country's individualism increases, auditor judgment is important; fear of losing the client is not as important and the importance of stockholders' reliance is less important. Further, as a country's litigation increases, time-budget problems are important; reliance on auditing rules is less important; the obligation of independence is less important; and, the probability of doing more work decreases. In the scenario dealing with releasing earnings information, Arnold *et al.* found that stockholders' reliance, client retention, perception of management, and professional obligations also were significant in the auditors' judgments. In the case dealing with a former audit manager who became the client's controller, costs versus benefits of additional audit procedures and avoiding negative audit consequences were not found to be significant.

Audit Planning

In this section of our paper, we reviewed five articles (Table 3) that studied how the issue of client trustworthiness relates to audit planning. The first article (Anderson and Marchant, 1989) investigated how auditors' perceptions of management's competence and integrity influences auditors' planning decisions concerning the gathering and evaluation of evidence. The second article (Kizirian *et al.*, 2005) assessed how perceived management integrity affects auditors' assessment of the risk of material misstatement and the audit planning process. The third article (Bernardi and Arnold, 1994) studied the influence of client integrity and auditor characteristics on materiality estimates. The fourth article (Arnold *et al.*, 2001) compared differences in materiality estimates across seven European countries. The fifth article (Margheim

and Label, 1990) delved into the extent to which external auditors rely on internal auditors when audit risk is assessed as high.

Client Integrity and Audit Planning

Anderson and Marchant (1989) investigated auditors' perceptions of behaviors when evaluating management competence and integrity. In a strategic framework, the auditor must first classify the type of client and then develop strategies to implement when assessing audit risk and planning the audit. Two important audit characteristics that should influence auditors' planning, evidence collection and evaluation are client competence and integrity. For example, when management is considered to have low integrity, auditors must increase extent of external evidence. Anderson and Marchant found that assessments of integrity are sensitive to evidence of negative behavior, whereas assessments of competence are sensitive to evidence of positive behavior. Prior research shows negative or extreme behaviors are given more weight than positive or moderate behaviors when evaluating management characteristics. Therefore, integrity behaviors are given greater weight than competence behaviors. Anderson and Marchant state that integrity and competence factors must be considered jointly rather than independently.

Kizirian *et al.* (2005) assessed the association between perceived management integrity, risk of material misstatement, audit planning, and the discovery of financial statement misstatements. They believe that management integrity provides the foundation for internal control, so the auditor must evaluate management integrity when examining evidence provided by management. When the risk of material misstatement is high, auditors should collect more external evidence to reduce the risk that a material misstatement will not be detected (detection risk). Kizirian *et al.* found that clients judged to be at lower (higher) perceived levels of management integrity have higher (lower) initial risk assessments. Auditors responded to low

management integrity by requiring more persuasive external evidence. Management integrity was also a significant predictor of discovering audit differences in the current year.

Management Integrity and Materiality

Bernardi and Arnold (1994) studied the influence of client integrity and auditor characteristics on materiality estimates. Materiality is the size that an error must be for the financial statements to be considered misleading. Therefore, as audit risk increases, materiality should decrease. Bernardi and Arnold found that there was not a significant difference in materiality estimates for auditors in the high or low perceived integrity groups. However, materiality estimates for the low integrity group were significantly lower than those made by auditors without an indication of client integrity and competence. Prior research also suggests a relationship between auditors' levels of moral development and their actions. Bernardi and Arnold found that as auditors' level of moral development increased, materiality estimates decreased. While it was expected that managers would be more sensitive to integrity issues than seniors, the differences in materiality estimates were only significant when compared by firm.

Arnold *et al.* (2001) compared differences in materiality estimates across seven European countries by examining perceived client integrity, uncertainty avoidance, and level of litigation. Average materiality estimates for the auditors from these seven countries were significantly lower (higher) for the low (high) integrity client, which demonstrates an inverse relationship between risk and materiality. Uncertainty Avoidance and litigation were also significant variables in determining materiality. Uncertainty avoidance was the major factor for both high and low integrity clients. As uncertainty avoidance increased (decreased), materiality decreased (increased). For low integrity clients, uncertainty avoidance and litigation had negative relationships with materiality estimates, which indicated the auditors were sensitive to the risk

information. European materiality estimates were generally higher than U.S. materiality estimates (Bernardi and Arnold, 1994).

External Auditor Reliance on Internal Auditors

Margheim and Label (1990) delved into the extent to which external auditors rely on internal auditors when audit risk is assessed as high. Their study manipulated internal auditor objectivity, management integrity, and a special internal auditor investigation. Margheim and Label (1990) found that external auditors would make considerable use of internal auditors when performing testable work; however, the majority of the external auditors would test the work regardless of audit risk level. When performing untestable work, external auditors would severely limit the use of internal auditors regardless of audit risk level. The authors also found that there was a significant increase in substantive test hours when management integrity was low. External auditors were less willing to use internal auditors when performing untestable work when management integrity was low. Further, external auditors relied on the special internal audit investigation when budgeting audit hours, but the investigation did not affect auditors' decisions to use internal auditors to provide assistance.

Audit Judgment

In this section of our research, we reviewed seven articles that assess how the issue of client trustworthiness associated with audit planning. The first article (Krambia-Kapardis, 2002) examined auditors' ability to detect material irregularities using a three-component model: rationalizations, opportunity, and crime-prone person. The second article (Bernardi, 1994a) investigated how client integrity and auditor cognitive style influence the fraud detection process. A third article (Iyer and Reckers, 2007) studied the influence the non-audit services

provision had on auditors' risk assessment when there was a lack of management integrity. The fourth article (Abdolmohammadi and Owhoso, 2000) considered whether auditors are sensitive enough to ethical issues when performing a fraud audit. The fifth article (Bernardi, 1997) looked into whether client integrity ratings influence auditors' assessment of fraud risk. A sixth article (Owhoso, 2002) reexamined the effect of disclosed versus undisclosed information on fraud risk assessment between male and female audit managers. The seventh article (Goodwin, 1999) assessed auditors' sensitivity to source credibility, consistency of evidence from different sources, and the interaction of both factors.

Fraud Detection Model

Krambia-Kapardis (2002) examined auditors' ability to detect material irregularities using a "red flags approach" to enhance fraud detection. Krambia-Kapardis created a three-component eclectic fraud detection and risk assessment model (e.g., rationalizations, opportunity, and crime-prone person). Management and employee fraud occurred in weak internal control systems (76 and 65 percent of companies respectively) and the absence of a code of conduct (64 and 56 percent of companies respectively). Association between red flags and their ability to alert auditor on the existence of material misstatements were found to depend on the category of the particular red flag.

Bernardi (1994a) investigated the influence of client integrity and auditor cognitive style on fraud detection. Auditors should evaluate higher risk and apply more rigorous audit procedures for low-integrity clients. Participants were randomly divided into three groups: a high integrity group, low integrity group, and control group. In addition to client integrity and competence, Bernardi examined the relevance of three cognitive styles: field dependence-independence, locus of control (Rotter, 1977), and moral development (Rest 1979). Bernardi

found that managers generally detected fraud at higher rates than seniors. However, Bernardi also found that, while seniors' detection rates did not vary by perceived integrity levels, managers' detection rates were higher for both high-integrity and low-integrity clients than for the control group based on the level of moral development. Auditors' prior estimates of likelihood of fraud existing at one of their office's clients were found to be significant.

Probability of Fraud Estimates

Iyer and Reckers (2007) conducted a study based on the non-audit services provision in the Sarbanes-Oxley Act of 2002 (SOX). Iyer and Reckers studied the influence the non-audit services provision had on auditors' risk assessment when there was a lack of management integrity. Management integrity (provision of non-audit services) was manipulated using a control and low level (no provision and significant provision). Iyer and Reckers found that, when management integrity was considered to be low (high), perceived risk assessment was rated as being high (low). When client integrity was rated as low (i.e., negative CEO image), auditors providing non-audit services were more confident about the client's statements being free of material errors than auditors who did not provide non-audit services.

Abdolmohammadi and Owhoso (2000) considered whether auditors are sensitive enough to ethical issues when performing a fraud audit. One group of audit managers and seniors received a review task with ethical player information (test group) and another group received the same task without ethical player information (control group). The ethical player information indicated a business organization that embraces the community above what is legally required. At the end of the review task, the auditors were asked to make an assessment as to the likelihood that the errors detected were the result of fraud. Findings show that managers' fraud risk assessment did not differ based on the ethical information provided. Additionally, audit seniors'

likelihood of fraud assessments were lower when ethical information was provided; however, there was no statistical difference between seniors and managers when no ethical information was provided. Results suggest audit seniors (managers) are (not) influenced by the presence of ethical player information, which suggests that audit seniors are more sensitive to ethical information. Abdolmohammadi and Owhoso suggest that managers may have viewed the ethical information as irrelevant; a client can be a great corporate citizen within the community while committing fraud.

Bernardi (1997) looked into whether client integrity ratings influence auditors' assessment of fraud risk in a simulated audit exercise. Participants were randomly assigned to three conditions: high client integrity, low client integrity, and no reference to client integrity (control group). Participants were under the impression that each group received a different case, but the only actual difference was the perceived client integrity (or lack thereof). After turning in their material, the auditors were asked to fill out a background questionnaire which contained a question regarding fraud risk assessment. Bernardi found that both managers and seniors assessed probability of fraud highest for the low integrity client group. Auditors with positive client ethical information rated the likelihood of fraud higher than those without any client ethical information. One explanation is that the case study data conflicted with the positive client information. Moral development may increase an auditor's sensitivity to fraud risk as experience increases to the manager level. The research indicates that both the auditor's priors and moral development should be considered when dealing with auditor sensitivity to ethical information.

Owhoso (2002) re-examined whether gender affects sensitivity to disclosed or undisclosed ethical information on fraud risk assessment on a group of 80 audit managers and 80 audit seniors. All 160 subjects were industry specialists - half specializing in healthcare audits

and the other half in banking audits. Each participant was randomly assigned to the disclosed ethical information (test group) or undisclosed ethical information (control group). Each auditor received a healthcare and a banking case and half were provided with a statement that the management of the client had been assessed as being of high integrity with a good reputation within a community. After becoming familiar with the client's background and reviewing the work papers, the subjects were asked to assess the likelihood of fraud. Owhoso found that, while females and males did not react differently to the presence or absence of positive ethical information, seniors were significantly more sensitive to the presence of ethical information than managers.

Goodwin (1999) assessed auditors' sensitivity to source credibility, consistency of evidence from different sources, and the interaction of both factors. Source credibility relates to the competence and integrity, or trustworthiness, of internal and external evidence sources. Audit evidence is considered to be more persuasive when coming from multiple sources, but the trustworthiness of the sources and the consistency of the information must be considered. In the first situation, the auditors examined external evidence provided by a lawyer acting for the client regarding a lawsuit for patent infringement. The second situation dealt with possible overstatement of inventory by management. Goodwin (1991) found that auditors are less likely to trust evidence from an internal or external source with low integrity. Further, auditors are sensitive to the consistency of evidence from multiple sources. Auditors are more reliant on external evidence when it is consistent with evidence from the client. Sensitivity to source credibility is greater when evidence is inconsistent with evidence from another source.

Summary

The purpose of this paper was to review the methodologies and findings of the auditing and forensic accounting disciplines concentrating on the associations between auditors' perceptions of client trustworthiness and the audit-decision process. Our paper demonstrates that Mautz and Sharaf's (1961) suggestion that audit procedures should reflect the degree of risk associated with a client was supported by the existing literature. Client trustworthiness affected the areas of risk assessment, client acceptance and withdrawal decisions, the audit planning process, probability of fraud estimates, and fraud detection.

In the area of risk, client trustworthiness dominated the decision process of internal and external auditors (Apostolou *et al.*, 2001) as well as forensic experts (Webber *et al.*, 2004). Management integrity and motives (Reckers and Wong-on-Wing, 1991) as well as maintaining a positive relationship with the auditors (Kerler and Killough, 2009) were significant factors in determining audit risk. Ponemon (1993) found similar results; however, he also noted that the auditor's level of moral development enhanced the auditor's level of ethical sensitivity to audit cues. Consequently, auditors' assessments of the risk associated with a client also affected client acceptance decisions (Beaulieu, 2001), withdrawal decisions (Schroeder and Verreault, 1987) and decisions concerning audit independence (Arnold *et al.*, 1999).

Audit risk also influenced the audit planning process for continuing clients. Anderson and Marchant (1989) found that negative client behavior affected auditors' assessments of risk more than their positive behaviors. Low management integrity indicates the need to require more persuasive external evidence (Kizirian *et al.*, 2005). Bernardi and Arnold (1994) and Arnold *et al.* (2001) found that low client integrity ratings suggested the need to lower materiality cut-off levels (i.e., increase the level of detail examined) for both European and U.S. auditors. When

management integrity was low, auditors needed to increase substantive test hours and were less willing to use internal auditors when performing untestable work (Margheim and Label, 1990).

Client trustworthiness also was found to influence the final decision process in the audit. Client integrity ratings influenced auditors' perceptions of information and alerted auditors to the possibility of fraud (Krambia-Kapardis, 2002). Bernardi (1994a) found that high moral development managers detected fraud at a higher rate when they received client integrity data. Management integrity also is a consideration to assessing fraud risk; when management integrity is low, perceived risk is higher than when management integrity is rated as being high (Iyer and Reckers, 2007). Abdolmohammadi and Owhoso (2000) found that audit seniors' fraud assessments were lower than managers' assessments when ethical information was provided. Bernardi (1997) found that auditors' estimates for the probability of fraud were higher for both the high and low integrity groups for those auditors who detected the fraud. However, Owhoso (2002) noted that seniors who received positive client information rated the probability of fraud lower than managers receiving similar information. Finally, Goodwin (1999) found that auditors were less likely to trust evidence from internal or external sources with low integrity and were sensitive to the consistency of evidence from multiple sources.

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FIGURE 1. Literature Review Outline

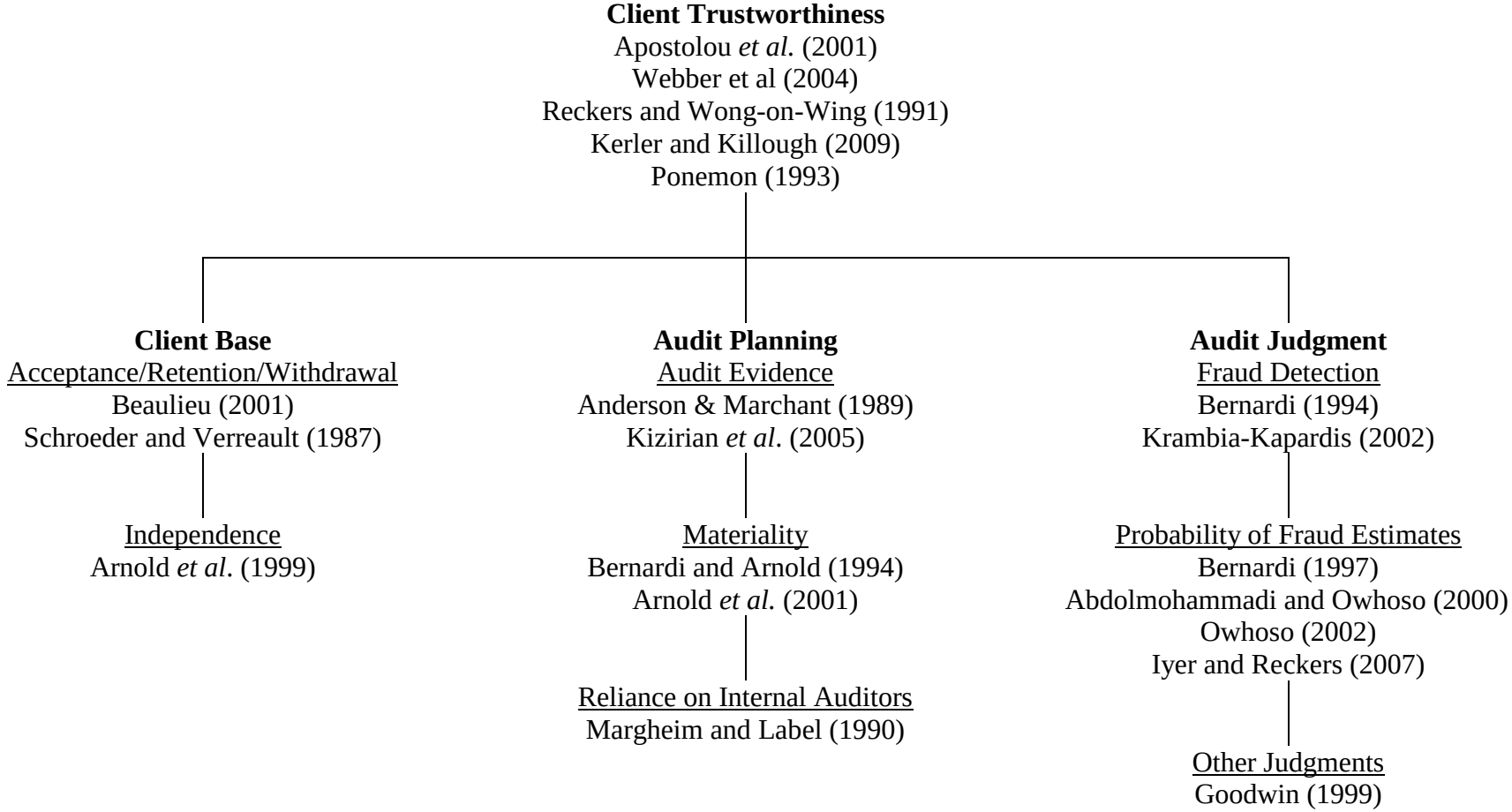

TABLE 1. Studies relating to client trustworthiness

Authors, Year and Journal	Design	Analysis	Findings
Apostolou *et al.* (2001). *Behavioral Research in Accounting*	(n = 90) 43 external/47 internal External: Big-5, regional and local auditors	AHP model using *Expert Choice*™ and Multivariate analysis of variance	Red flags on compensation, aggressive accounting practices, internal control, and high management turnover accounted for 30.5 percent of the variation for the probability of fraud
Webber *et al.* (2004). *Advances in Accounting Behavioral Research*	(n = 35) Big-5 forensic experts	AHP model using *Expert Choice*™ and Wilcoxon Non-parametric tests	Red flags on compensation, aggressive accounting practices, internal control, and a high management turnover accounted for 38.7 percent of the variation for the probability of fraud
Reckers and Wong-on-Wing (1991) *Behavioral Research in Accounting*	Case study (n = 244) Managers and seniors	Analysis of variance	Auditors of low integrity clients were more concerned about management's motives. Management's motives affected subsequent audit decisions.
Kerler and Killough (2009). *Advances in Accounting Behavioral Research*	(n = 89) Auditors	Path Analysis	Past experiences working with the client's management is positively related to trust in that client
Ponemon (1993). *Advances in Accounting*	Survey data (n = 61) Audit managers	Multivariate and moderated regressions	Client integrity and competence were significant in estimating audit risk

AHP Analytical Hierarchy Process
TM Trade mark

TABLE 2. Studies relating to an auditor's client base

Authors, Year and Journal	Design	Analysis	Findings
Beaulieu (2001) *Auditing: A Journal of Practice & Theory*	Ranking 22 client integrity facts for a new client (n = 63) Canadian partners	LISREL Path Analysis	Client integrity negatively associated to business risk and combined risk and auditors adjusted the amount of evidence they collected
Schroeder and Verreault (1987) *Advances in Accounting*	Examined 36 new clients (n = 11) Audit partners	Analysis of variance	Large and medium firms ranked client integrity as the number one reason to withdraw from auditing a client
Arnold *et al.* (1999) *Auditing: A Journal of Practice & Theory*	Survey data 7 countries (n = 198) Partners and managers	Factor Analysis among auditors	Auditors' opinions on independence on associate with Hofstede's (1980) constructs

TABLE 3. Studies relating to audit planning

Authors, Year and Journal	Design	Analysis	Findings
Anderson and Marchant (1989). *Auditing: A Journal of Practice & Theory*	Rate predicted behavior (n = 75) Big-8 auditors	Analysis of variance	Assessments of integrity (competence) are sensitive to negative (positive) behavior.
Kizirian *et al.* (2005). *Auditing: A Journal of Practice & Theory*	Actual client work papers Examined 60 prior audits	Regression	Low management integrity requires more persuasive external evidence and assisted in detecting audit errors
Bernardi and Arnold (1994). *Irish Accounting Review*	Case study (n = 492) Managers and seniors	Dunn multiple comparison tests (Non-parametric statistics)	Auditors in the low-integrity group estimated materiality at a lower level than auditors in the control group
Arnold *et al.* (2001). *International Journal of Accounting*	Survey data 7 countries (n = 181) Partners and managers	Regression average responses	Materiality estimates were lower for the low-integrity client than for the high-integrity client or all seven countries
Margheim and Label (1990). *Advances in Accounting*	Case studies (n = 125) Managers and seniors	Multivariate analysis of variance	Increase in substantive test hours and less willing to use internal auditors when performing untestable work when management integrity was low

TABLE 4. Studies relating to audit judgments

Authors, Year and Journal	Design	Analysis	Findings
Krambia-Kapardis (2002) *Journal of Financial Regulation and Compliance*	50 fraud offenders 108 Australian auditors	Spearman rank correlation tests	Client integrity influenced auditors' perceptions of information and alerted auditors them to the possibility of fraud
Bernardi (1994a) *Auditing: A Journal of Practice & Theory*	Case study (n = 492) Managers and seniors	Logistic regression	High moral development managers who received client integrity data detected fraud at a higher rate. Probability of fraud priors was also significant
Iyer and Reckers (2007) *Managerial Auditing Journal*	(n = 47) Seniors	Analysis of covariance	Management integrity is consideration to assessing fraud risk; when management integrity is low (high), perceived risk is high (low).
Abdolmohammadi and Owhoso (2000) *Managerial Finance*	Case study (n = 160) Managers and seniors	Analysis of variance	Fraud risk assessment did not differ by ethical information. Senior's fraud assessments were lower when ethical information provided.
Bernardi (1997) *Research on Accounting Ethics*	Case study (n = 492) Managers and seniors	Multiple Regression	Auditors' estimates for fraud were higher for both the high and low integrity groups for those auditors who detected the fraud. Fraud priors were also significant.
Owhoso (2002) *Journal of Managerial Issues*	Case study (n = 160) Managers and seniors	General Linear Model	Seniors who received positive client information rated the probability of fraud lower (no difference for managers)
Goodwin (1999) *Auditing: A Journal of Practice & Theory*	Case study (n = 50) Chinese Auditors	Elaboration Likelihood Model (ELM)	Auditors less likely to trust evidence from internal or external sources with low integrity and sensitive to the consistency of evidence from multiple sources.