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Big 5 Auditors' Professional and Organizational Identification: Consistency or Conflict?

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SUMMARY

In response to a variety of challenges, accounting firms are reorganizing and reengineering their core audit services to capitalize on technology advances and to deliver more value-added services to their clients. Critics, however, have voiced concern that the changes underway undermine auditors' professionalism. Accordingly, this study examines auditors' sense of professional identity. Specifically, we provide (1) a comprehensive model of the relation between auditors' professional and organizational identities, including their potential conflict; and (2) the antecedents and consequences of auditors' professional and organizational identification, including how organizational-professional conflict relates to turnover. We find relatively high levels of professional identification and organizational identification, and a relatively low level of organizational-professional conflict among our study's 252 Big 5 auditors. Professional identification is positively related to organizational identification, but it is organizational identification and its antecedents that play the central role in the empirical model. Organizational identification decreases both organizational-professional conflict and turnover. The results have implications for both practitioners and researchers.

Keywords: professional identification; organizational identification; professional image; organization-professional conflict; turnover.

Data Availability: Contact the authors.

The changes in the profession since the 1970s are significant, and have fundamentally changed the way accounting firms operate their businesses internationally, the way they perform audits, the structure and governance of the firms, as well as their cultures and perhaps even the "tone at the top."

—Lynn E. Turner (2000)

To meet challenges, including new non-CPA competitors, technology developments that are changing the rules of business, and increasing demand for more complex and real-time financial services, the Big 5 accounting firms are reorganizing to strengthen their global links and ties to other disciplines so that they can provide business—not simply accounting—solutions.

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One of the major changes underway is that accounting firms are reengineering their core audit services to capitalize on technology advances and to deliver more value-added services to their clients. Critics, however, have raised concerns that the changes underway undermine auditors' professionalism (e.g., Levitt 1998; Public Oversight Board [POB] 2000). Accordingly, we examine auditors' professional identity and test for potential conflict between auditors' perceived professional responsibilities and their firms' demands. We present (1) a comprehensive model of auditors' professional identification, organizational identification, organizational-professional conflict, and hypothesized antecedents and consequences; and (2) the results of an empirical test of the model on the responses of 252 Big 5 auditors.[1] The results provide insights into the role of professionalism in these firms.

Despite mounting criticism of the auditing profession, there is surprisingly little recent evidence on auditors' professionalism. While early research reported evidence of an organizational-professional conflict (e.g., Sorensen and Sorensen 1974; Schroeder and Imdieke 1977), subsequent research found little evidence that such conflict exists (e.g., Aranya and Ferris 1984; Norris and Niebuhr 1984; Goetz et al. 1991; Schroeder et al. 1992). However, the factors that this subsequent research suggested ameliorate organizational-professional conflict (e.g., large public accounting firms' structure insulates auditors from nonprofessional activities [Loeb 1971], and the emphasis on auditing in contrast to less professional-oriented activities [Montagna 1968; Goetz et al. 1991]) are less significant today. In particular, the Panel on Audit Effectiveness (POB 2000) specifically expresses concern that professional leadership and "the tone at the top" give insufficient emphasis to auditing. To provide evidence on how these changes have affected auditors' professionalism, we examine the relation between professional identification and organizational identification, and revisit professional-organizational conflict within the Big 5 accounting firms.

The Panel on Audit Effectiveness (POB 2000) suggests that one of the most significant challenges facing the auditing profession is declining attractiveness of auditing careers, as evidenced by firms' difficulty in retaining professional personnel. As a secondary objective, we therefore model the effect of auditors' organizational and professional identification and organizational-professional conflict on turnover in Big 5 accounting firms.

Our paper also incorporates two methodological advances over the earlier work on professionalism. The first is our focus on auditors' *identification* with the auditing profession and with their firm. Prior research focuses on organizational commitment (e.g., Harrell 1990; Bline et al. 1991; Gregson 1992a). However, organizational commitment is not necessarily organization specific (Mael and Ashforth 1995) and it encompasses multiple dimensions, each with potentially different effects on auditors' attitudes and turnover intentions (Meyer and Allen 1991; Ketchand and Strawser 1998; Dwyer et al. 2000). In contrast, organizational identification represents a cognitive connection between the individual and his or her specific organization. It provides a theory-based construct for distinguishing between auditors' professional identification and organizational identification.

Prior research examines auditors' professional attachment using correlation and regression analysis that only examines a single relation at a time. We extend this research by presenting a more comprehensive model, and by testing this model using the two-step structural equation procedure advocated by Anderson and Gerbing (1988). This procedure (1) permits the simultaneous testing of a complex series of interrelated dependence relations, and (2) explicitly considers measurement error. The result is a clearer and more unified documentation of the significant and insignificant effects.

This paper is organized as follows: The next section presents the literature review and hypothesis development. Following sections describe the research method and present the results. The final section discusses the study's conclusions and implications.

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[1] Derived from social identity theory (Tajfel and Turner 1985; Dutton et al. 1994), organizational identification refers to an individual's cognitively based shared identity or "perceived oneness with an organization" (Mael and Ashforth 1992, 103). Attributes ascribed to the organization also strongly influence individuals' self-definition and behavior. Similarly, auditors' professional identification refers to their perceived oneness with their profession.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Organizational Identification

Many studies in the organizational behavior literature examine individuals' psychological attachment to their work organizations (e.g., O'Reilly and Chatman 1986; Wallace 1995; Wan-Huggins et al. 1998). While attachment to an organization may manifest itself in many different forms, such as commitment, identification, loyalty, and internalization, the majority of these studies use organizational commitment to examine employees' relationships with their employers. Research on CPAs' organizational attachment also focuses on organizational commitment and its antecedents and consequences (e.g., Harrell 1990; Bline et al. 1991; Gregson 1992a). However, organizational commitment consists of multiple dimensions, which has led organizational researchers (e.g., Meyer and Allen 1991) to question its use for studying employee attachments to their organizations. O'Reilly and Chatman (1986, 498) argue that "the nature of one's attachment may vary, and these variations can be differentially associated with important organizational attitudes and behaviors." In fact, Ketchand and Strawser (1998) find support for the multiple dimensions of organizational commitment among accounting professionals and for their differential effects on turnover.[2]

Organizational identification is one of the important forms of employee attachment to organizations (Brown 1969; Rotondi 1975). Mael and Ashforth (1992) argue that organizational identification is a specific form of social identification in which individuals define themselves in terms of their membership in a particular organization. Recent research establishes organizational identification as a perceptual cognitive construct that is different, both conceptually and empirically, from organizational commitment, as well as from other related work and job attitudes (Mael and Tetrick 1992). Mael and Ashforth (1995, 312) distinguish organizational identification from organizational commitment as follows:

> Although identification is necessarily organization-specific, commitment may not be. The focal organization's goals and values may be shared by other organizations, such that one could score high on commitment without perceiving a shared destiny with that particular organization. With proper incentives, the individual could readily transfer his or her commitment to a different, even competing, organization with similar goals and values. However, if one identified with the organization, then he or she would necessarily experience some psychic loss upon leaving the organization.

Researchers have applied organizational identification in a variety of settings, not only to employees of work organizations (e.g., Wan-Huggins et al. 1998), but also to different types of psychological group members, such as soldiers (Mael and Ashforth 1995), college alumni (Mael and Ashforth 1992), and accounting firm alumni (Iyer et al. 1997). These studies find that organizational identification reflects the individual's psychological attachment to a specific organization, and that organizational identification is associated with desirable outcomes for the individual and the organization, including job involvement and intent to remain.

Professional Identification

Social identity theory maintains that individuals classify themselves into various social groups, including gender, religious affiliation, and organizational and professional memberships (Tajfel and Turner 1985; Dutton et al. 1994). Accordingly, auditors will likely identify with both their profession and their firm. An individual typically decides to become a CPA long before he or she joins a particular accounting firm so professional identification can be expected to develop before organizational identification. Moreover, even when CPAs leave public practice, they often keep their

[2] Ketchand and Strawser (1998) report that accountants form commitment through support for the organization's goals and values (i.e., affective commitment), lack of alternative job opportunities (i.e., low alternatives commitment), and the opportunity cost of leaving (i.e., high sacrifice commitment).

certification and AICPA affiliation. Aranya et al. (1981) argue that a professional affiliation is both separate from and precedes the development of an affiliation to a particular organization; the accounting firm is the conduit for the individual auditor's professionalism.

The ability of the firm to facilitate the individual's professional expectations and strengthen a professional identity will increase the individual's organizational identification (Aranya et al. 1981; Norris and Niebuhr 1984; Meixner and Bline 1989). In their study of internal auditors' professionalism, Kalbers and Fogarty (1995) find that internal auditors with higher levels of professionalism are more committed to their organization. In one of the few studies of professional identification, Russo (1998) examines the organizational and professional identifications reported by a group of newspaper journalists. She hypothesizes that professional identification will strengthen organizational identification because organizations provide the means necessary to work as a professional and share a professional identity. Her findings supported this view, with journalists exhibiting high levels of identification with both their profession and their newspaper. Accordingly, we expect that auditors' professional identification will act to strengthen their organizational identification.

H1: Auditors' professional identification is positively associated with their organizational identification.

Organizational-Professional Conflict

Organizational-professional conflict (OPC) results when organizational values are incompatible with professional values. An organization's concern with control and authority, rules and regulations, and organizational loyalty can conflict with the professional employee's concern for professional autonomy and maintaining high standards (Sorensen 1967). This conflict causes the professional to have to compromise between satisfying the organization's demands and acting in accordance with professional values and judgment. The greater this compromise, the greater the OPC.

However, research on accountants' OPC finds that accountants show a strong commitment to both their employer and their profession and relatively low levels of OPC (Aranya and Ferris 1984; Norris and Niebuhr 1984; Harrell et al. 1986). Based on their literature review, Kalbers and Fogarty (1995) conclude that there is no clear evidence in public accounting on the mutually exclusiveness of professionalism and organizational commitment. Factors suggested to ameliorate OPC in public accounting include large public accounting firms' structure that insulates auditors from nonprofessional activities (Loeb 1971) and their emphasis on auditing in contrast to less professional-oriented activities (Montagna 1968; Goetz et al. 1991).

Of interest is whether these findings from more than a decade ago continue to hold in today's environment. While the Panel on Audit Effectiveness (POB 2000) concludes that audits are conducted effectively, the Panel raises several concerns, including the concern that professional leadership in the largest accounting firms gives insufficient emphasis to auditing relative to consulting work. Indeed, factors that traditionally have been suggested to lead to the positive relation between auditors' professionalism and organizational commitment are less significant today. While the dominant position of auditing in large accounting firms helped to ensure firms' professional orientation, auditing now only accounts for approximately a third of these firms' revenues.[3] Moreover, SEC Chief Accountant Lynn Turner (2000) argues that auditors now face considerable pressure to keep clients happy while selling them additional services.

If auditors are less insulated from nonprofessional activities, then auditors who identify more with their profession should more acutely experience these nonprofessional pressures and, as a

[3] SEC Chief Accountant Lynn Turner reports that the Big 5's (formerly Big 8's) auditing and accounting fees were 70 percent of total revenues in 1976, but only 34 percent in 1998.

result, these auditors should experience higher OPC. Aranya and Ferris (1984, 6) suggest that auditors who are loyal and very involved in both their profession and firm may "not be ready to admit possible incompatibility between organizational and professional demands." In this case, there may not be a positive relation between professional identification and OPC. Nevertheless, significant nonprofessional pressures should eventually lead to conflict for auditors who define themselves in terms of their profession's defining characteristics (i.e., have high professional identification). On the other hand, auditors who come to define themselves more in terms of their firm (i.e., have high organizational identification) are more likely to accept and internalize firm demands as part of their own value system, irrespective of the nonprofessional pressures they face. Accordingly, we examine the following two hypotheses.[4]

H2: Auditors' professional identification is positively associated with their OPC.

H3: Auditors' organizational identification is negatively associated with their OPC.

Turnover Intention

Turnover is one outcome of organizational dynamics that is an especially important issue for accounting firms and the profession (POB 2000). To the extent that OPC exists, OPC has generally been found to be detrimental to employees' work-related attitudes and intentions, including turnover.[5] Organizational identification is also expected to have a separate direct effect on turnover intention (Chatman 1991; Wan-Huggins et al. 1998). Therefore, we examine two hypotheses on turnover intention. Figure 1 presents our conceptual model of all the hypothesized relations.

H4: Auditors' OPC is positively associated with their turnover intention.

H5: Auditors' organizational identification is negatively associated with their turnover intention.

Identification's Antecedents

To provide additional understanding of the role of professional and organizational identification and OPC in Big 5 firms, we examine antecedents of these variables. In particular, we focus on the antecedents of professional identification given that, to the best of our knowledge, this is the first study of auditors' professional identification. We identified three antecedents, professional image, job autonomy, and auditing effectiveness, from a review of the social identity theory literature and research on commitment and OPC in accounting and elsewhere.

Professional Image

Consistent with social identity theory, Dutton et al. (1994) propose that what members believe outsiders think about their organization influences the cognitive connection that members create with their organization. In a longitudinal test of a model of organizational identification, Wan-Huggins et al. (1998) find that construed external image (i.e., the extent to which employees believed that customers and others in the industry perceived the company as a good place to work) is an important determinant of employees' own identification with the company. Iyer et al. (1997) find that an accounting firm's perceived prestige is related to the alumni's identification with their former firm. We extend these findings to auditors' identification with their profession.

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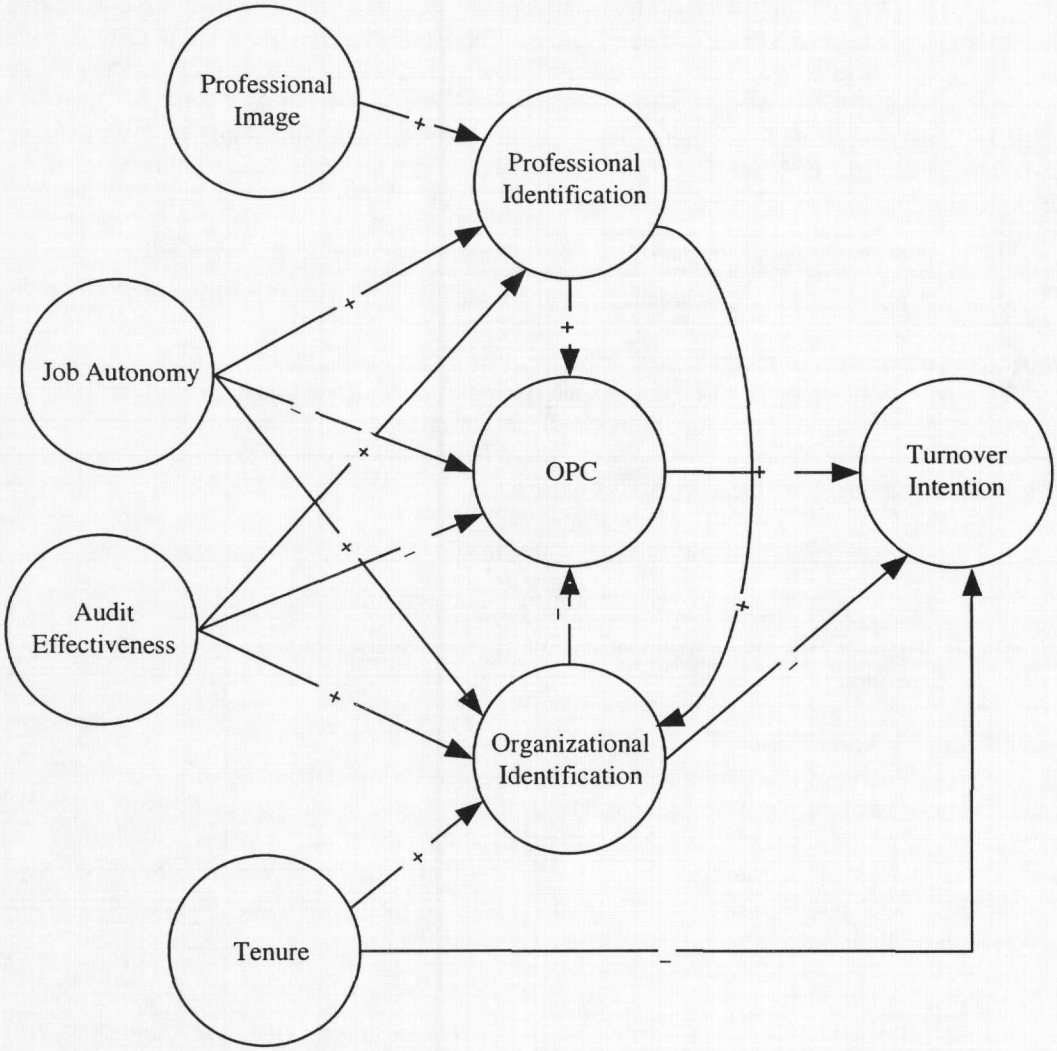
[4] These hypotheses' maintained assumption is that there are differences between the goals and values of accounting firms and the profession. If this is not so, and the goals and values are closely aligned, then both professional identification and organizational identification should be negatively associated with OPC. When there is such alignment, Aranya and Ferris (1984, 6) suggest that low professional and organizational affiliation and high OPC reflect the individual's "occupational maladjustment."

[5] Not surprisingly, the best single predictor of actual turnover is individuals' turnover intentions (Arnold and Feldman 1982; Cotton and Tuttle 1986).

FIGURE 1
Hypothesized Model of Auditors' Organizational and Professional Identification



H6: Construed professional image is positively associated with auditors' professional identification.

Job Autonomy

Job autonomy has long been recognized as an important organizational variable and a critical element of professionalism (Hall 1968). Autonomy is especially important for auditors because of the need to adhere to professional standards and provide independent opinions.[6] Norris and Niebuhr (1984)

[6] The Independence Standards Board's exposure draft of *A Conceptual Framework for Auditor Independence* (ISB 2000) identifies advocacy threats—threats that arise from auditors or others in their firm promoting or advocating for or against an auditee's position or opinion rather than serving as unbiased attestors of the auditee's financial information—as one of the five primary threats to auditor independence.

find a positive correlation between job autonomy and professionalism in their study of one accounting firm. In her study of journalists' professional identification, Russo (1998) finds that autonomy is significantly and positively correlated with professional identification. Fogarty and Kalbers (2000) conclude that providing job autonomy (and related feedback) is the single most important step firms can undertake to enhance internal auditors' professionalism. To the extent that organizational members recognize the efforts of the organization to support their professionalism, job autonomy can also contribute to organizational identification (Brown 1969; Wan-Huggins et al. 1998). Therefore, we hypothesize that job autonomy will be positively related to both professional and organizational identification. Given the central role of job autonomy in defining the professional's relation to the organization, job autonomy may also have a direct negative relation to OPC (Aranya and Ferris 1984).

H7: Job autonomy is positively associated with auditors' professional identification and organizational identification, and negatively associated with their OPC.

Audit Effectiveness

Given the importance in auditing of satisfying professional standards and performing quality audits, auditors' self-esteem and sense of belonging to their profession should be enhanced by their ability to perform quality audits. Because the firm is the conduit for auditors to practice their professionalism, we hypothesize that there will be a positive relation between auditors' perception of audit effectiveness in their firm and professional identification. Similarly, auditors' organizational identification should be enhanced if they believe that the firm shares their concern for quality work and that it provides them with an audit methodology to conduct quality audits. As with job autonomy, the salience of audit effectiveness suggests that it, too, will be negatively related to OPC. If auditors believe that they are not provided the resources to perform quality audits, then the fundamental nature of this concern could directly contribute to OPC.

H8: The perceived effectiveness of the firm's audit process is positively associated with auditors' professional identification and organizational identification, and negatively associated with their OPC.

Tenure

We include auditors' tenure with their accounting firm in the model because it is strongly correlated with turnover intention (e.g., Rasch and Harrell 1990) and tenure has been associated with a variety of organizational variables. In particular, Dutton et al. (1994) argue that the longer one remains with an organization, the more salient the organizational membership becomes for self-categorization. A number of studies (e.g., O'Reilly and Chatman 1986; Mael and Ashforth 1992) support the relation between tenure and organizational identification. Accordingly, we hypothesize relations between tenure and organizational identification and turnover.

H9: Auditors' tenure is positively associated with their organizational identification and negatively associated with their turnover intention.

METHOD

Sample

A random sample of 1,250 CPAs (i.e., members of the AICPA) employed as auditors in Big 5 firms received the two-page questionnaire. They were asked to return the completed questionnaires directly to the researchers in an enclosed stamped self-addressed envelope. The post office returned 123 as undeliverable. We received 204 responses to our first request. Follow-up questionnaires to a random sample of 500 nonrespondents to the first request generated another 53 responses. The total

of 257 responses represents a 22.8 percent response rate. Of these, five questionnaires were discarded due to incomplete responses. Since late respondents have been shown to resemble nonrespondents (Oppenheim 1966), we performed a multivariate analysis of variance to detect differences between early and late respondents. No response bias could be detected from our analysis (Wilk's Lambda = 0.99; $F(8, 240) = 0.327$; $p = 0.95$).

Measures

Most of the measures used in this study were adapted from scales validated in prior research. Pilot testing with nine practicing auditors led to minor changes in the instrument. Subjects responded to five-point Likert scales ranging from 1 = Strongly Disagree to 5 = Strongly Agree. We measured organizational identification with a five-item scale adapted from Mael and Ashforth (1992). Iyer et al. (1997) and Wan-Huggins et al. (1998) also used this scale to measure organizational identification. We rephrased the five items in the organizational identification scale to a professional orientation to measure professional identification. Russo (1998) used the same technique to measure the professional identification of journalists, while Van Knippenberg and Van Schie (2000) also used this approach to measure employees' work-group identification. We measured organizational-professional conflict with two items previously used by Aranya and Ferris (1984) and others (see Brierley [1998] for a review of this scale). We measured turnover intention with a four-item scale adapted from Chatman (1991), and professional image with a four-item scale adapted from Mael and Ashforth (1992) and Iyer et al. (1997). As part of their Job Diagnostic Survey, Hackman and Oldham (1975) designed a three-item measure of job autonomy. We used this scale to measure auditors' job autonomy. We developed a two-item scale to measure audit effectiveness. The respondents indicated their tenure with the firm in number of months.

Analysis

We test the model presented in Figure 1 using the two-step structural equation procedure advocated by Anderson and Gerbing (1988) and employed in a number of accounting studies (e.g., Kalbers and Fogarty 1995; Dalton et al. 1997; Iyer et al. 1997; De Ruyter and Wetzels 1999; Fogarty et al. 2000).[7] This procedure entails (1) evaluating the measurement model to correct for measurement error, before (2) estimating the structural equations. We employ LISREL 8.3 (Jöreskog and Sörbom 1999) with maximum likelihood estimation for the structural equation analysis, which provides a simultaneous test of the study's hypotheses.

ANALYSIS AND RESULTS

Descriptive Statistics

Among the respondents, there were four junior staff members, 55 seniors, 73 managers, 55 senior managers, and 60 partners. Five did not specify their title. Panel A of Table 1 presents descriptive statistics on the study's primary variables. Given a scale midpoint of 2.5 and a maximum value of 5, professional identification (mean = 3.71) and organizational identification (mean = 4.26) are relatively high, while OPC (mean = 1.94) is quite low. Professional and organizational identification means are significantly greater than their scale midpoints ($p < 0.01$), while OPC is significantly less than its scale midpoint ($p < 0.01$). Turning to the model's outcome, turnover intention (mean = 2.66, $p < 0.05$) is just above the scale midpoint. Regarding the model's antecedents, professional image (mean = 4.06), job autonomy (mean = 4.15) and audit effectiveness (mean = 3.41) are all significantly above their scale midpoints ($p < 0.01$). Respondents' mean tenure is approximately 10 years.

Panel B of Table 1 compares our results on OPC with those of Aranya et al. (1981) and Aranya and Ferris (1984). These two earlier studies provide a convenient benchmark for evaluating the

[7] Gregson (1992b) and Kalbers and Fogarty (1995) discuss the advantages of this approach in an accounting context.

TABLE 1
Descriptive Statistics

Panel A: Descriptive Statistics on the Study's Variables

Variable	n	Mean	Median	Std. Dev.	Min.	Max
Professional Identification	252	3.71	3.75	0.65	1.00	5.00
Organizational Identification	252	4.26	4.25	0.66	1.00	5.00
Organizational-Professional Conflict	252	1.94	2.00	0.75	1.00	5.00
Turnover Intention	252	2.66	2.70	1.06	1.00	5.00
Professional Image	252	4.06	4.00	0.67	2.00	5.00
Job Autonomy	252	4.15	4.00	0.69	1.00	5.00
Audit Effectiveness	250	3.41	3.50	0.79	1.00	5.00
Tenure (months)	251	123	80	104	18	456

Panel B: Comparison of Organizational-Professional Conflict Means

Rank	Aranya et al. (1981)	Aranya and Ferris (1984)	Current Study
Seniors	2.16	2.46	2.11
Managers	1.74	1.88	1.93
Partners	1.42	1.34	1.77

Scores are on five-point scales, with higher scores indicating higher professional identification, turnover intention, etc. Aranya et al. (1981) and Aranya and Ferris (1984) means are re-scaled from the original seven-point scales. Aranya and Ferris (1984) use the title "staff" rather than "seniors." Since they do not report experience levels, we cannot determine what proportion of their staff are actually seniors.

levels of OPC reported by our respondents. The levels appear quite similar and, consistent with Aranya and Ferris (1984), we interpret them as indicating relatively low OPC. Also consistent with earlier studies, we find that OPC declines with rank ($F = 3.456$, $p < 0.02$).

Confirmatory Factor Analysis

Using the data covariance matrix as input, we performed a confirmatory factor analysis (CFA) on all of the measures to verify the factor structure of our items. CFA addresses the potential problem of interpretational confounding by assessing whether all items in a given scale represented the same latent factor (Anderson and Gerbing 1988). To evaluate the fit of the resulting measurement model, we followed Bollen's (1989) recommendation to interpret multiple indices of fit. In addition to the Chi-square statistic, we also provide the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Incremental Fit Index (IFI), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), and the Standardized Root Mean Square Residual (RMR).

According to the CFA, the initial measurement model did not have an acceptable fit. After an iterative process, based on item loadings and modification indices, one item each from professional image, organizational identification, and professional identification was deleted.[8] The resulting measurement model showed substantial improvement. Table 2 provides the results of the confirmatory factor analysis. Although the Chi-square statistic is still significant, CFI and IFI values of 0.91 and the

[8] Anderson and Gerbing (1988) suggest that deleting problem indicators is the preferred solution for poor fit. A number of related studies (e.g., Aquino et al. 1997; Dalton et al. 1997; De Ruyter and Wetzels 1999) take this approach to obtain a better-fitting model.

TABLE 2
Results of Confirmatory Factor Analysis

Goodness of Fit

χ^2	549.28 ($p < 0.01$)
df	196

	Model	Value Indicating Acceptable Fit
Root Mean Square Error of Approximation (RMSEA)	0.08	0.10 <
Comparative Fit Index (CFI)	0.91	> 0.90
Incremental Fit Index (IFI)	0.91	> 0.90
Normed Fit Index(NFI)	0.87	> 0.90
Non-Normed Fit Index(NNFI)	0.88	> 0.90
Goodness-of-Fit Index (GFI)[a]	0.85	> 0.90
Adjusted Goodness-of-Fit Index (AGFI)[a]	0.79	> 0.90
Root Mean Square Residual (RMR)	0.06	0.05 <

Construct	Composite Reliability	Variance Extracted
Professional Identification	0.80	0.51
Organizational Identification	0.92	0.74
OPC	0.58	0.43
Turnover Intention	0.90	0.70
Professional Image	0.81	0.60
Job Autonomy	0.92	0.80
Audit Effectiveness	0.70	0.54

[a] Both GFI and AGFI are affected by sample size (Sharma 1996).

RMSEA value of 0.08 indicate a well-fitting model. Other indices are very close to the threshold levels. Accordingly, we deemed the measurement model to possess an acceptable overall fit.

In addition to the criterion of overall fit, we evaluated the measurement model's adequacy in terms of individual measures' validity and reliability. Supporting the measures' convergent validity, all variables are significantly related to their constructs ($p < 0.01$). Higher variance-extracted values occur when the indicators are truly representative of the latent construct, and guidelines suggest that the variance-extracted value should exceed 0.50 (Hair et al. 1998). Table 2 shows that all constructs have high variance-extracted measures, except for OPC's marginal value of 0.43. Anderson and Gerbing (1988) recommend testing for discriminant validity by fixing the correlation at 1.0 for pairs of constructs with high correlations, and using a Chi-square difference test to compare the constrained and unconstrained models. We performed this test on the four pairs of constructs with correlations exceeding 0.45. In each case, the constrained model had a significantly poorer fit compared to the unconstrained model, as indicated by higher Chi-square values ($p < 0.001$). This supports the constructs' discriminant validity. Table 2 also shows that composite reliabilities of all the constructs equal or exceed the recommended level of 0.70 (Hair et al. 1998), except for OPC with a reliability score of 0.58.[9]

[9] Researchers have used either a one-item scale or a two-item scale to measure OPC (for a review of prior research on OPC, see Brierley [1998]). We use both items since multiple indicators are needed to estimate measurement errors in a structural equation model. Reported structural equations results do not change if we drop the item with low loading and use just one item to measure OPC.

We performed two additional analyses to specifically examine the professional and organizational identification constructs, given that this is their initial use in accounting. First, we performed a principal component analysis of the items that make up these two constructs. The analysis yielded two factors, which accounted for 62.2 percent of the variance. All the items loaded above 0.50 on the intended factor, and there were no cross-loadings of 0.35 or higher. These results suggest that the organizational identification and professional identification scales assess different constructs, rather than one single construct. Second, in the CFA, we estimated a model using one identification construct instead of two, with all eight indicators loading on this one construct. The estimated model showed an inferior fit ($\chi^2 = 968.40$, df = 210, CFI = 0.80, GFI = 0.77) compared to the theoretical model. The item-loadings also suggested that the indicators represent two separate constructs. These additional tests support the other validity and reliability analyses in suggesting that professional identification and organizational identification are separate constructs.

Finally, use of single sources of information can introduce spurious relationships among the variables (Bradfield and Aquino 1999; McFarlin and Sweeney 1992). This common method bias is indicated if a single latent factor accounts for all manifest variables. Accordingly, we compared the single factor model to the complete eight-factor model. The eight-factor model fit the data much better than did the single factor model ($\chi^2 = 549.28$, df = 196; and $\chi^2 = 2085.75$, df = 230, respectively), which suggests that common method bias is not a significant problem. Once we were satisfied that the measurement model showed acceptable fit, validity, and reliability, we proceeded to evaluate the structural model.

Structural Model

We tested the hypothesized structural model using LISREL 8.3 (Jöreskog and Sörbom 1999). Considering the relatively large number of parameters being estimated for the sample size, we used a partial aggregation approach to test the structural models (as recommended by Kenny 1979; James et al. 1982; Williams and Hazer 1986).[10] Table 3 presents the structural model's statistics. Although the Chi-square statistic is still significant ($\chi^2 = 23.93$, df = 8, $p < 0.01$), most other fit indices well exceed the recommended cut-off values. CFI and IFI values of 0.97, GFI value of 0.98, NFI value of 0.96, an RMSEA value of 0.08, and the standardized RMR value of 0.04 show that our hypothesized model fits the data very well. Moreover, the exogenous variables explain 18 percent, 42 percent, 53 percent, and 49 percent of the variance in professional identification, organizational identification, OPC, and turnover intention, respectively. Equally important, Table 4 shows that the standardized parameter estimates for all but three of the hypothesized relationships are significant and in the predicted directions. Figure 2 presents the significant paths of the structural model.[11]

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[10] We constructed a single, composite scale for each construct by summing the items (weighted by their factor loadings) that make up each construct. A covariance matrix of these variables and information about each scale's reliability and variance were used as input for the LISREL program. This technique allows measurement error to be incorporated into the analysis prior to estimating the constructs. This approach is used in numerous studies in a variety of academic disciplines, such as accounting (De Ruyter and Wetzels 1999), management (Pillai et al. 1999), marketing (Garbarino and Johnson 1999), psychology (Mathieu et al. 1993), and organizational behavior (Lambert 2000). Netemeyer et al. (1990) show that this procedure results in path estimates that are virtually identical to those estimates generated by using multiple, single-variable indicators. Indeed, we also found that our results did not change when we used multiple indicators in the structural model, albeit with somewhat lower fit indices.

[11] Modification indices measure how much Chi-square is expected to decrease if a particular parameter is set free and the model re-estimated. Jöreskog and Sörbom (1983) recommend using a cutoff of 5.0 for evaluating whether additional paths might be included in the structural model, although researchers (e.g., Byrne 1988, 125) caution against "overfitting" or "specifying additional parameters after having determined a criterion that reflects a minimally adequate fit." An inspection of the modification indices for our model suggested one additional meaningful relation (the path from audit effectiveness to turnover intentions with an index value of 8.56). Reperforming the analysis with this path in the model did not affect any of the reported results.

TABLE 3
Overall Fit Summary and Explained Variances for the Model of Auditors' Professional and Organizational Identification

	Result
Statistical Tests	
χ^2	23.93
df	8
p-value	< 0.01
Fit Indices	
CFI (Comparative Fit Index)	0.97
IFI (Incremental Fit Index)	0.97
NFI (Normed Fit Index)	0.96
NNFI (Non-Normed Fit Index)	0.90
GFI (Goodness-of-Fit Index)	0.98
AGFI (Adjusted Goodness-of-Fit Index)	0.90
Residual Analysis	
Standardized RMR (Root Mean Square Residual)	0.04
RMSEA (Root Mean Squared Error of Approximation)	0.08
Explained Variance (R^2) of Dependent Variables	
Professional Identification	0.18
Organizational Identification	0.42
OPC	0.53
Turnover Intention	0.49

TABLE 4
Structural Equations Results and Estimated Coefficients for the Hypothesized Model

Hypothesis	Independent Variable	Dependent Variable	Standardized Coefficients	t-value	Conclusion
H1	Professional Identification	Organizational Identification	0.42	8.12	Supported at $p < 0.01$[a]
H2	Professional Identification	OPC	–0.02	–0.24	Not Supported
H3	Organizational Identification	OPC	–0.17	–2.37	Supported at $p < 0.01$
H4	OPC	Turnover Intention	0.51	7.84	Supported at $p<0.01$
H5	Organizational Identification	Turnover Intention	–0.11	–1.85	Supported at $p < 0.05$
H6	Professional Image	Professional Identification	0.35	5.36	Supported at $p < 0.01$

(Continued on next page)

TABLE 4 (Continued)

Hypothesis	Independent Variable	Dependent Variable	Standardized Coefficients	t-value	Conclusion
H7	Job Autonomy	Professional Identification	0.11	1.63	Supported at $p < 0.05$
	Job Autonomy	Organizational Identification	0.29	5.08	Supported at $p < 0.01$
	Job Autonomy	OPC	–0.43	–6.94	Supported at $p < 0.01$
H8	Audit Effectiveness	Professional Identification	0.07	0.94	Not Supported
	Audit Effectiveness	Organizational Identification	0.18	3.13	Supported at $p < 0.01$
	Audit Effectiveness	OPC	–0.32	–5.03	Supported at $p < 0.01$
H9	Tenure	Organizational Identification	0.00	0.08	Not Supported
	Tenure	Turnover Intention	–0.28	–5.63	Supported at $p < 0.01$

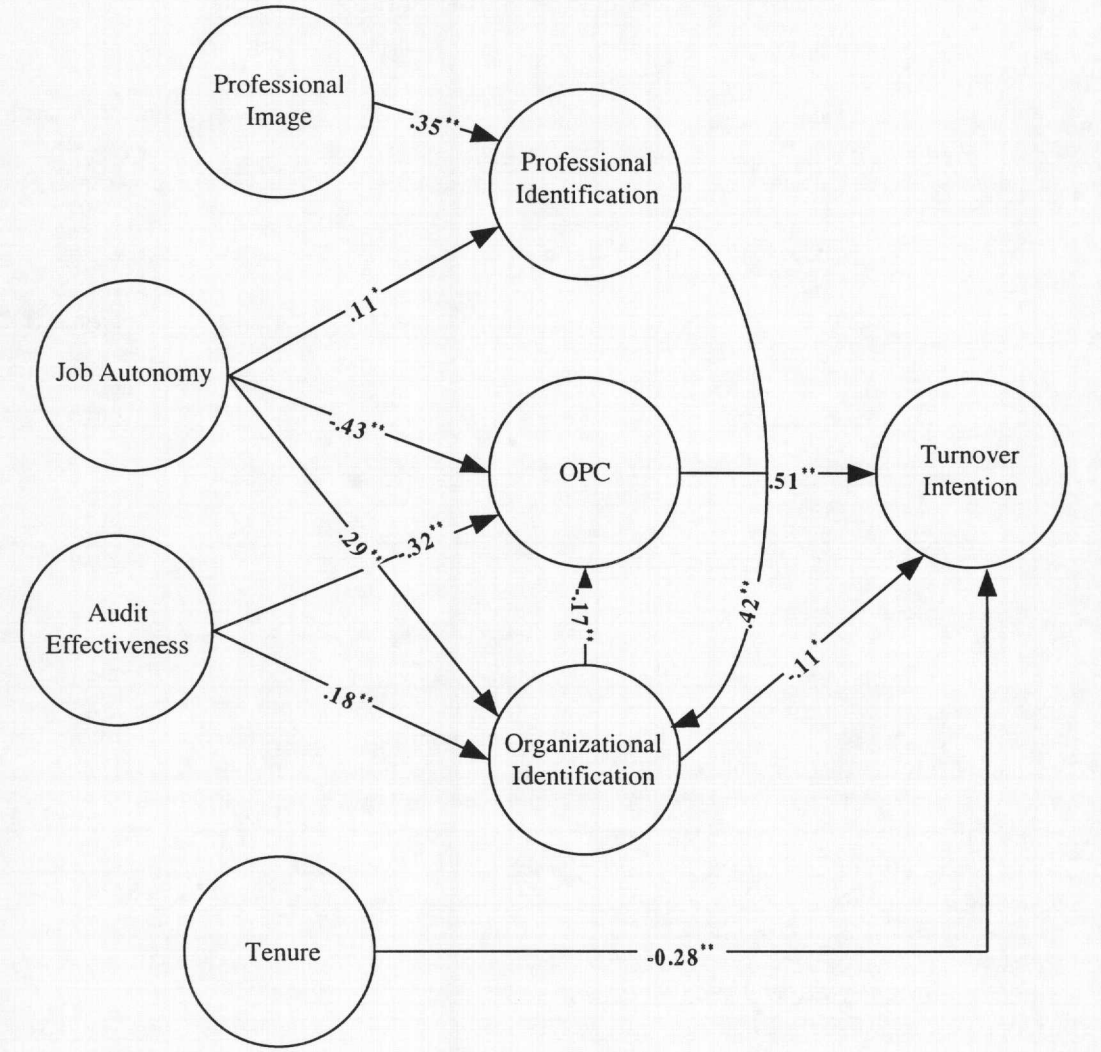
[a] p-values are calculated using one-tailed test.

Figure 2 (and Table 4) shows that, as hypothesized (H1), professional identification has a significant, positive influence on organizational identification, which, in turn, has a significant negative influence on OPC (H3).[12] That is, auditors with relatively low organizational identification are more likely to experience greater OPC. Professional identification's hypothesized (H2) relation to OPC is not significant ($t = -0.24$). Auditors are likely to have a strong affinity for both their profession and their firm, but, where conflict arises, it appears to be driven by a breakdown in auditors' identification with their firm. As hypothesized, auditors' OPC has a significant positive influence on turnover intention (H4), and organizational identification also has a significant direct negative influence on turnover intention (H5: $p < 0.05$). Organizational identification's association with both OPC and turnover supports the view that the source of conflict is auditors' identification with their firm rather than with their profession.

Figure 2 shows that, as hypothesized, professional image and job autonomy ($p < 0.05$) have a significant, positive influence on professional identification. The significant result for professional image is consistent with prior research's emphasis on the role of what outsiders think (i.e., external image) in establishing identification (H6). Job autonomy was hypothesized to influence not only professional identification, but also organizational identification and OPC (H7). That job autonomy contributes to professional identification, organizational identification, and also directly to OPC reflects the importance of this construct to audit professionals (Fogarty and Kalbers 2000). Similar to job autonomy, we hypothesized in H8 that auditors' perceptions of the effectiveness of their firms' audit processes would influence professional identification, organizational identification, and OPC. The relationship between audit effectiveness and professional identification is not supported ($t = 0.94$). Rather, concerns about audit effectiveness affect organizational identification and OPC directly. Finally, H9 predicted relationships between auditors' tenure and their organizational identification and turnover intention. Only the negative relation between tenure and turnover intention is significant.

[12] Unless noted otherwise, all significant relations are significant at 0.01 or lower with a one-tailed test.

FIGURE 2
Results of Structural Equation Modeling[a]



*, ** Significant at $p < .05$ and $p < .01$, respectively.
[a] Significant paths only. Numbers are the standardized path coefficients.

CONCLUSIONS AND IMPLICATIONS

This paper presents a comprehensive model of auditors' professional identification, organizational identification, organizational-professional conflict, and hypothesized antecedents and consequences. Limitations associated with mail questionnaires, including response rate and nonresponse bias, require caution in the interpretation of the study's results. Nevertheless, the model provides an acceptable fit to the responses of 252 Big 5 auditors, and explains a significant amount of variation in the auditors' organizational-professional conflict and turnover intentions.

We find, on average, relatively high levels of professional identification and organizational identification, and a relatively low level of organizational-professional conflict for our study's 252

practicing Big 5 auditors. Mean levels of organizational-professional conflict appear quite similar to those initially reported by Aranya et al. (1981) and Aranya and Ferris (1984). Nevertheless, among respondents there is a wide range in the reported organizational-professional conflict, and organizational-professional conflict is positively associated with turnover intention. Interestingly, only organizational identification contributes directly to organizational-professional conflict. Professional identification is not directly associated with it, but contributes to organizational identification, which in turn affects organizational-professional conflict. As hypothesized, professional image and job autonomy are significant antecedents of professional identification. Job autonomy and the perceived effectiveness of the firm's audit process are significant antecedents of organizational identification, as well as having a direct effect on organizational-professional conflict. Organizational identification appears to play a critical role in auditors' relation to their firm. Organizational identification is associated with both organizational-professional conflict and turnover intention. That is, greater organizational identification leads to less organizational-professional conflict and it leads to lower turnover intention, both directly and indirectly through less organizational-professional conflict.

Our results have implications for both research and practice. The explanatory power of our model together with the significant effects of professional identification and organizational identification suggest that social identity theory's identification construct provides a useful approach for examining auditor behavior. Social identity theory maintains that individuals develop multiple affiliations in order to define themselves in their environment (Tajfel and Turner 1985; Dutton et al. 1994). In this study, we examined auditors' professional and organizational identities, and the potential for conflict. Our results indicate that although auditors' professional identification and organizational identification are related, they are meaningfully separate constructs. Future research may also examine auditors' identification with their clients, and how this identification coexists with their professional identification.

Our results suggest that it is in firms' own interest to provide a professional-oriented culture. While the average auditor in our study does not perceive his or her Big 5 firm culture as creating significant professional-related conflicts, firm-related factors play an important role in the organizational-professional conflict of auditors who do experience significant organizational-professional conflict. Supporting auditors' professional identification by supporting the image of the profession (e.g., through the AICPA's Vision Project) and providing auditors with job autonomy increases their organizational identification. This, in turn, helps reduce organizational-professional conflict and turnover. In addition, our results suggest that audit methodologies that foster job autonomy and an effective audit can help increase organizational identification and reduce organizational-professional conflict.

The primary motivation for this study was the concern that auditing's structural changes over the last decade have reduced auditors' professionalism and increased their organizational-professional conflict. Our evidence that professional identification does not directly contribute to organizational-professional conflict and that this conflict is, on average, relatively low suggests that auditors do not perceive they must significantly compromise their professional values to satisfy their firm's demands. While forces that prior research suggest ameliorate organizational-professional conflict are less prominent today (e.g., Big 5 firms' structures insulating auditors from nonprofessional activities), other forces such as new computerized auditing methods and decision aids may have taken their place. As a result, auditors still have the requisite job autonomy and effective audit tools to satisfy their professional values. However, another explanation for our results is that the nature of auditors' professionalism has changed. Auditors who believe that their profession is moving from an auditing-driven culture toward an emphasis on multiple professional services may not be conflicted by a culture that de-emphasizes auditing and independence as traditionally defined. Under this view, auditors identify with their firm's version of professionalism. To the extent that conflict exists, it is not so much between auditors' professionalism and their firms' nonprofessional demands, but between firms' view of professionalism vs. the vision of professionalism held by regulators and others. Distinguishing between these explanations for auditors' continued low organization-professional conflict is beyond the scope of this study, but it is an important question for future research.

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