

## **Big 5 Auditors' Professional and Organizational Identification**

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**ABSTRACT:** Motivated by the concerns of the Panel on Audit Effectiveness and others over the "tone at the top" in the large accounting firms, 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 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. The results suggest that it is in firms' interest to protect and enhance their auditors' professional identification since professional identification is positively associated with organizational identification which, in turn, is associated with increased job satisfaction and reduced organizational-professional conflict. Our results are not consistent with auditors feeling pressured to sacrifice their professionalism on behalf of their firm's search for profits.

**Key Words:** Professional identification, Organizational identification, Professional image, Turnover.

**Data Availability:** Contact the authors.

## **Big 5 Auditors' Professional and Organizational Identification**

The changes in the profession since the 1970's 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)

Facing numerous challenges including new non-CPA competitors, slow growth in the market for basic audit services, technology developments that are rewriting the rules of business, and increasing demand for more complex and real-time financial services, the accounting profession is reinventing itself. All of the Big 5 accounting firms have reorganized, or are in the process of reorganizing, strengthening their global links and their ties to other disciplines as they strive to provide business solutions, rather than simply accounting solutions. One of the major changes is the re-engineering of accounting firms' core audit services in response to technology change and clients' desire to obtain more value from their audits.

While accounting firms strive to provide more effective and efficient audits that add value to their clients' business, others have raised concerns that the changes underway undermine the auditor's role in assuring the credibility and reliability of the financial information reaching capital markets. In particular, Securities and Exchange Commission (SEC) Chairman Arthur Levitt (1998; 2000) has expressed concern that audit re-engineering has enhanced efficiency at the expense of audit effectiveness, and that efforts to retain clients and sell consulting services have compromised auditors' objectivity and independence. The purpose of this study is to examine auditors' sense of professional identity in light of these concerns. 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 identification.

Despite mounting criticism of the auditing profession over the last decade, there has been surprisingly little research on auditors' professionalism. While early research reported evidence of an organizational-professional conflict (e.g., Sorensen and Sorensen 1974; Schroeder and

Indieke 1977), subsequent research examining the correlates of professionalism finds 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 research suggests ameliorate organizational-professional conflict (e.g., large public accounting firms' structure insulates auditors from non-professional activities (Loeb 1971), and the emphasis on auditing in contrast to less professional-oriented activities (Montagna 1968; Goetz et al. 1991)) are less relevant 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. Accordingly, we examine the relation between professional and organizational identification, and revisit professional-organizational conflict within the Big 5 accounting firms.

The Panel on Audit Effectiveness (POB 2000) suggests that a significant challenge currently facing the auditing profession is the decline in the attractiveness of an auditing career, as evidenced by firms' difficulty in retaining professional personnel for the long-term. While there is considerable research on turnover in accounting firms (e.g., Rasch and Harrell 1990; Ketchand and Strawser 1998), this research does not examine the role of professionalism or professional-organizational conflict in auditor turnover. We extend this research by modeling the relation between turnover in Big 5 accounting firms and professional identification and organizational-professional conflict.

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., Gregson 1992; Bline et al. 1991; Harrell 1990) and its antecedents and consequences. However, organizational commitment consists of multiple dimensions, each with potentially different effects on job satisfaction and turnover intentions (Meyer and Allen 1990; Ketchand and Strawser 1998). This multi-dimensionality appears to persist when the organizational commitment scale is transformed to measure professional commitment. Dwyer et al. (2000, 279) find that this scale "contains potentially spurious dimensions." Moreover, commitment is not organization specific. Rather,

an individual may transfer his attachment to even a competing organization if that organization has similar goals and values (Mael and Ashforth 1995). In contrast, organizational identification represents a cognitive connection between the individual and his or her organization. Dutton et al. (1994, 242) describe organizational identification as “one form of psychological attachment that occurs when members adopt the defining characteristics of the organization as defining characteristics for themselves.” Mael and Tetrick (1992) show that organizational identification shares less variance than does organizational commitment with measures of job and organizational satisfaction; organizational commitment contains affective components that lead to extensive overlap with these measures of satisfaction.

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 not only presenting a more comprehensive model, but also 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. While this procedure has not been previously employed in the study of professionalism and turnover in public accounting, it has been successfully employed in the study of organizational commitment and turnover (e.g., Gregson 1992) and the study of internal auditors’ professionalism (e.g., Kalbers and Fogarty 1995; Fogarty and Kalbers 2000).

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 practicing Big 5 auditors. Professional identification is positively associated with organizational identification. These results suggest that despite recent concerns over firm pressure to keep the client happy and cross-sell consulting services, Big 5 firm culture is not creating significant professional-related conflicts. Professional image, job autonomy and audit effectiveness are all significant antecedents of professional identification. Organizational-

professional conflict is not directly associated with turnover; rather, organizational identification (positive association) and organizational-professional conflict (negative association) are each associated with job satisfaction, which in turn is negatively associated with turnover intention. In addition, we find that contrary to our hypothesis, organizational identification has a direct positive association with turnover intention. In a sense, some of the firms' "best" auditors are more likely to leave, but not because of professional conflicts. This result supports the concerns over retaining staff expressed by the Panel on Audit Effectiveness and in the professional literature (e.g., Graig 2000).

Our results have implications for both practice and research. Efforts by Big 5 firms to provide a professional-oriented culture, whether through training, mentoring, technology, or "tone at the top," appear relatively successful. Firms can support auditors' professional identification by supporting the image of the profession (e.g., through the AICPA's Vision Project), providing auditors with job autonomy, and ensuring audit effectiveness. Auditors' professional identification, in turn, contributes to their organizational identification, but not organizational-professional conflict. Our results suggest that organizational-professional conflict is not a primary driver of turnover. Job satisfaction's central role in predicting turnover suggests the need for a more expansive analysis of the determinants of auditors' job satisfaction. Finally, the explanatory power of our model together with the important role that organizational identification plays in the model suggests that the organizational identification construct may provide researchers with a cleaner measure of auditors' firm affiliation than does organizational commitment.

This paper is organized as follows: Section two presents the literature review and hypothesis development. Sections three and four describe the research method and present the results, respectively. The final section discusses the study's conclusions and implications.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Background**

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). In general, this research finds that strong attachment leads to favorable organizational outcomes, including greater job satisfaction and less employee turnover. While attachment to an organization may manifest itself in many different forms, such as commitment, identification, loyalty, and internalization, the majority of studies use organizational commitment to examine employees' relationship with their employer. Research on CPAs' organizational attachment also focuses on organizational commitment and its antecedents and consequences (e.g., Harrell 1990; Bline et al. 1991; Gregson 1992). Moreover, most of these studies have relied on the Organizational Commitment Questionnaire (OCQ) (Mowday et al. 1979) to measure organizational commitment.

However, organizational commitment consists of multiple dimensions, which has lead organizational researchers (e.g., Meyer and Allen 1990) to question this scale's 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 job satisfaction and turnover intentions.

Organizational identification is one of the important forms of employee attachment to organizations. It has long been recognized as having important implications for organizational effectiveness (Brown 1969; Rotondi 1975). However, researchers have differed in their conceptualization of organizational identification. Some researchers view it as a component of organizational commitment and internalization (Hall et al. 1970; O'Reilly and Chatman 1986) and proceed to examine its antecedents and consequences. More 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. This research views organizational identification as a cognitive connection between the individual and the organization, which is distinct from affective states

(e.g., commitment, satisfaction) or specific behaviors (e.g., efforts by the individual on behalf of the organization). These behaviors and affective states are potential consequences of organizational identification. 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.

Mael and Tetrick (1992) show that organizational identification shares less variance with measures of job and organizational satisfaction than does organizational commitment. As measured by the OCQ, organizational commitment contains affective components that lead to extensive overlap with these measures of satisfaction. Mael and Tetrick (1992) conclude that organizational identification is a promising contribution to the measurement of loyalty and attachment to an organization.

### **Organizational and Professional Identification**

Social identity theory maintains that individuals classify themselves into various social groups, including gender, religious affiliation, and organizational and professional memberships, in order to define themselves in their social environment (Tajfel and Turner 1985; Dutton et al. 1994). 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. Mael and Ashforth (1992, 103) define organizational identification as “a perceived oneness with an organization and the experience of the organization’s successes and failures as one’s own.”

Researchers have applied organizational identification in a variety of settings, not only to employees of work organizations (e.g., Wan-Huggins et al. 1998; Abrahams and Kaori 1998),

but also to different types of psychological group members, such as soldiers (Mael and Ashforth 1995), college alumni (Mael and Ashforth 1982), 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 satisfaction, job involvement, and intent to remain. For example, Iyer et al. (1997) develop and test a model of the identification of accounting firm alumni with their former accounting firm. They find that organizational identification is related to perceived prestige of the firm, the firm's socialization processes, alumni's continued relationship with a mentor at the firm, and alumni's inclination to benefit their former firm.

Like other professionals, CPAs have an affinity to both their profession and their employer. An individual typically decides to become a CPA long before he or she joins a particular accounting firm. Moreover, even when CPAs leave public practice, they often keep their certification and AICPA affiliation. The firm is a conduit for the individual's professionalism (Aranya et al. 1981). Accordingly, Aranya et al. (1981) argue that the development of a professional affiliation precedes the development of an affiliation to any particular organization. When the firm's values are congruent with the profession's values, the individual will identify strongly with both the firm and the profession (Aranya et al. 1981; Norris and Niebuhr 1983).

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 will identify with their profession (professional identification) and their employer (organizational identification).

## **Organizational-Professional Conflict**

Organizational-professional conflict (OPC) results when organizational values are incompatible with professional values, such as professional autonomy and maintaining high standards (Sorensen 1967). The extent to which organizations allow professionals to act in accordance with their professional values and judgment is an important determinant of OPC (Aranya and Ferris 1984). Research on accountants' OPC finds that accountants show a strong commitment to both their employer and their profession and relatively low levels of organizational-professional conflict (Aranya and Ferris 1984; Harrell et al. 1986). However, this research finds that to the extent that OPC exists, OPC is detrimental to employees' work-related attitudes and intentions, including job satisfaction, job involvement, and turnover intention.

Of interest is whether these findings 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. The dominant position of auditing in large accounting firms helped to ensure firms' professional orientation (Montagna 1968; Goetz et al. 1991). However, auditing now only accounts for approximately a third of these firms' revenues.<sup>1</sup> Moreover, SEC Chief Accountant Lynn Turner (2000) argues that auditors now face considerable pressure to keep clients happy while selling them additional services. As a result, auditors are less insulated from non-professional activities.

We examine the relations between organizational identification, professional identification, OPC and two outcome variables, job satisfaction and turnover intention. Both job satisfaction and turnover intention are typically included in prior studies of commitment and

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<sup>1</sup> SEC Chief Accountant Lynn Turner reports that the Big 5's (formerly Big 8) auditing and accounting fees were 70% of total revenues in 1976, but only 34% in 1998.

organizational-professional conflict. Job satisfaction refers to the individual's affective reaction to his or her work environment. Job satisfaction is a desirable outcome for the employer as well as the individual, as it is generally found to be positively associated with job performance and negatively associated with turnover intention (e.g., Iaffaldano and Muchinsky 1985; Rasch and Harrell 1990; Fogarty et al. 2000). Not surprisingly, the best single predictor of actual turnover is individuals' turnover intentions (Arnold and Feldman 1982; Cotton and Tuttle 1986).

Figure 1a presents our conceptual model showing the hypothesized relations among these variables. In summary, findings from OPC research in auditing and the non-auditing professional identification literature lead us to hypothesize that auditors' professional identification is positively related to their organizational identification and negatively related to their OPC. We hypothesize that organizational identification is also negatively related to OPC and turnover intention, but positively related to job satisfaction. Other paths shown in the model are OPC's negative relation to job satisfaction and positive relation to turnover intention, and the negative relation between job satisfaction and turnover intention.

[Insert Figures 1a and 1b about here]

### **Professional 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. However, 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, OPC, and turnover in accounting and elsewhere. Figure 1b presents the hypothesized relations.

#### *Professional Image*

Group members are interested in their group's external image. For example, Dutton et al. (1994) propose that what members believe outsiders think about their organization influences the cognitive connection that members create with their organization. Wan-Huggins et al. (1998) in

a longitudinal test of a model of organizational identification find that the extent to which employees believed that others (e.g., customers, others in the industry) perceived the company as a good place to work increased the employees own identification with the company. Iyer et al. (1997) find that an accounting firm's perceived prestige is related to the organizational identification of the firm's alumni. We hypothesize that auditors' perception of the image of their profession will be positively related to their identification with the profession.

#### *Job Autonomy*

Job autonomy has long been recognized as an important element of professionalism (Hall 1968). Autonomy is especially important for auditors because of the need to adhere to professional standards. In her study of journalists' professional identification, Russo (1998) found that autonomy was significantly and positively correlated with professional identification. Norris and Niebuhr (1983) find a positive correlation between job autonomy and professionalism in their study of one accounting firm. 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. Therefore, we hypothesize that job autonomy will be positively related to professional identification. Related research (e.g., Aranya and Ferris 1984) also suggests that job autonomy will be negatively related to OPC.

#### *Audit Effectiveness*

Investors' demands for credible and reliable financial information and auditors' need to satisfy professional standards are salient features of auditing. Social Judgment Theory (Tajfel and Turner 1986) suggests that auditors' self-esteem and sense of belonging to their profession should be enhanced by their ability to perform quality audits. However, if auditors share SEC Chairman Arthur Levitt's (1998) concerns that audit re-engineering has enhanced efficiency at the expense of audit effectiveness, then auditors' professional identification should suffer. Therefore, we hypothesize that there will be a positive relation between auditors' perception of audit effectiveness in their firm and professional identification. As with job autonomy, we also hypothesize a negative relation between audit effectiveness and OPC.

### *Tenure and Gender*

Because auditors' tenure with their accounting firm and their gender are strongly correlated with turnover intention (e.g., Rasch and Harrell 1990), they are included in the model for completeness. They may also be associated with professional identification. 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. We also consider whether auditors' tenure is positively related to their professional identification.

Rasch and Harrell (1990) report that little is known about why female accountants' turnover is greater than their male counterparts' turnover. More recently, Dalton et al. (1997) find a significant difference for work/non-work obligations. They also report that females are more likely to leave public accounting rather than just change employers. To the extent that females expect to have a shorter career in public accounting, their self-esteem may be less dependent on their professional affiliation. To provide further evidence on this issue, we include gender in our model. However, the exploratory nature of these investigations leads us to include both tenure and gender as exogenous variables, without a hypothesized relation to professional identification.

## **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 non-respondents to the first request generated another 53 responses. The total of 257 responses represents a 22.8% response rate. Of these, five questionnaires were discarded due to incomplete responses. No response biases could be detected from a statistical analysis of responses to the first and second requests.

## 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 Strongly disagree (1) to Strongly agree (5). We measured organizational identification with a five-item scale adapted from Mael and Ashforth (1992). They reported a reliability (alpha) of 0.87. Iyer et al. (1997) and Wan-Higgins et al. (1998) also used this scale to measure organizational identification. Consistent with Russo (1998), we rephrased the five items in the organizational identification scale to a professional orientation to measure professional 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). The three-item job satisfaction scale from the Michigan Organizational Assessment Package (Cammann et al. 1978) was used to provide a global indication of auditors' affective response to their jobs. We measured turnover intention with a four-item scale adapted from O'Reilly et al. (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 three-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).<sup>2</sup> This procedure entails (1) evaluating the measurement model to correct for measurement error, before (2) estimating the structural equations. We employ LISREL 8.3 (Joreskog and

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<sup>2</sup> Gregson (1992) and Kalbers and Fogarty (1995) discuss the advantages of this approach in an accounting context.

Sorbom 1999) with maximum likelihood estimation for the structural equation analysis; it provides a simultaneous test of the study's hypotheses.

## **ANALYSIS AND RESULTS**

### **Descriptive Statistics**

Among the 180 male and 72 female respondents, there were four junior staff members, 55 seniors, 73 managers, 55 senior managers, and 60 partners. Five did not specify their title. 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=3.68) and organizational identification (mean=4.23) 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 ( $p < 0.01$ ). These results are consistent with prior research. Turning to the model's outcomes, job satisfaction (mean=4.11) is also high and significantly above the scale midpoint ( $p < 0.01$ ), while turnover intention (mean=2.66,  $p < 0.05$ ) is just above the scale midpoint. Regarding the model's antecedents, professional image (mean=4.17), job autonomy (mean=4.15) and audit effectiveness (mean=3.15) are all significantly above their scale midpoints ( $p < 0.01$ ). Respondents' mean tenure is approximately 10 years.

[Insert Table 1 about here]

### **Confirmatory Factor Analysis (CFA)**

Using the data covariance matrix as input, we performed a 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 1998). LISREL 8.3 (Joreskog and Sorbom 1999) was used to evaluate the fit of the resulting measurement model.<sup>3</sup> We followed Bollen's (1989) recommendation to

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<sup>3</sup> One item from the job satisfaction measure had to be dropped prior to the analyses because of its linear dependency (perfect correlation) with another item in the scale. Principal component analysis revealed a very low loading (0.165) for an item in the audit effectiveness scale and we dropped that item from further analyses.

interpret multiple indices of fit when evaluating both the measurement and structural models. In addition to the chi-square statistic, we also provide the Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Incremental Fit Index (IFI), and the Root Mean Square Residual (RMR).<sup>4</sup>

According to the CFA, the initial measurement model fit the data poorly ( $\chi^2$  (382)=1943.85,  $p < 0.001$ ; GFI=0.73; CFI=0.75). This poor fit was not surprising since measurement respecification is typically required to achieve an acceptable fit (Anderson and Gerbing 1988).<sup>5</sup> Respecification decisions should follow both content and statistical considerations. After an iterative process, based on item loadings and modification indices, eight items were deleted: one item each from professional image, turnover, OPC and job autonomy and two items each from organizational identification and professional identification. 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.

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 0.90, the RMSEA value of 0.088 and the standardized RMR value of 0.51 indicate a well-fitting model. Accordingly, we deemed the measurement model to possess an

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<sup>4</sup> According to Byrne (1998), the RMSEA is one of the most informative criteria in covariance structure modeling. RMSEA values less than 0.05 indicate good fit, and values as high as 0.10 represent reasonable errors of approximation in the population. CFI takes sample size into account to compare the hypothesized model with an independent model, and a value  $> 0.90$  indicates an acceptable fit to the data (Bentler 1992). Bollen (1989a) developed the IFI to address the issue of parsimony and sample size. Its value can range from zero to 1.0, with higher values indicating superior fit. The RMR represents the average residual value derived from the fitting of the variance-covariance matrix for the hypothesized model to the variance-covariance matrix of the sample data (Byrne 1998). A standardized RMR value of 0.05 or less denotes a well-fitting model.

<sup>5</sup> This is especially the case with our study which (1) represents the initial investigation of identification in auditing, and (2) analyses a comprehensive model of the antecedents and consequences of auditors' identification.

acceptable overall fit (Anderson and Gerbing 1988).

[Insert Table 2 about here]

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, each of the indicator loadings exceeds 0.50 (other than one indicator of professional image with a loading of 0.48), and all variables are significantly related to their constructs ( $p < 0.01$ ). Table 2 presents variance extracted and composite reliability statistics. 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 professional identification's value of 0.49. Composite reliabilities of all the constructs exceed the recommended level of 0.70 (Hair et al. 1998), except for audit effectiveness with a reliability score of 0.69.

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 0.7. 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.

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 ten-factor model. The ten-factor model fit the data much better than the single factor model ( $\chi^2 = 434.82$ ,  $df = 147$ ; and  $\chi^2 = 1534.28$ ,  $df = 189$ , 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 (Joreskog and Sorbom 1999). The theoretical model fit the data reasonably well ( $\chi^2=530.58$ ,  $df=166$ ). However, inspection of the modification indices suggested two additional relations: A path from job autonomy to organizational identification, and a path from audit effectiveness to job satisfaction. Given the plausibility of these relations, we added them to the model. Table 3 provides the results of this revised structural model. The revised model provides a significantly better fit than the hypothesized model (chi-square difference = 22.18,  $df = 2$ ,  $p<0.01$ ). More importantly, there was no difference in the significance levels of the hypothesized paths between the two models. Hence, Figures 2a and 2b present the standardized path coefficients of the revised model.<sup>6</sup>

Table 3 shows that the model fits the data well. CFI and IFI values of 0.90, an RMSEA value of 0.82, an RMR value of 0.54, and the GFI value of 0.86 reach the recommended levels or are just below the acceptable threshold values. Equally important, the standardized parameter estimates shown in Figures 2a and 2b indicate that all but three of the hypothesized relationships are significant and in the predicted directions. Moreover, Table 3 shows that the  $R^2$  values for the structural equations are high, implying that the model provides a good deal of explanatory power. All of the effect sizes are well above Cohen's (1977, 413) standard of an  $R^2$  of 0.26.

[Insert Table 3 and Figure 2 about here]

Figure 2a shows that, as hypothesized, professional identification has a significant, positive association with organizational identification, which, in turn, has a significant negative influence on OPC.<sup>7</sup> Professional identification's relation to OPC is not significant ( $t=0.11$ ). 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. That is, auditors with relatively low organizational identification are more likely to experience

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<sup>6</sup> All relationships presented in Tables 2a and 2b were tested simultaneously. The BETA and GAMMA relationships are shown separately for ease of presentation.

<sup>7</sup> Unless noted otherwise, all significant relations are significant at 0.001 or lower with a one-tailed test.

greater OPC.

An examination of the antecedents of professional identification supports this interpretation of the relation between the two types of identification and OPC. Figure 2b shows that, as hypothesized, professional image ( $p < 0.001$ ), job autonomy ( $p < 0.01$ ), and audit effectiveness ( $p < 0.05$ ) all have a significant, positive influence on professional identification. In particular, auditors with the requisite job autonomy and who perceive that their firm provides them with an audit technology to perform quality audits exhibit higher professional identification. Moreover, both job autonomy and audit effectiveness have a significant direct and negative influence on OPC. That is, auditors who believe they do not have the requisite job autonomy and auditors who feel that quality auditing is not supported experience greater OPC.

In addition to professional identification's positive influence on organizational identification, job autonomy ( $p < 0.01$ , two-sided as no hypothesized relation) and tenure ( $p < 0.06$ ) both have a significant and positive influence on organizational identification. That job autonomy contributes to professional identification, organizational identification and also directly to OPC reflects the importance of this construct to audit professionals. Tenure's positive influence on auditors' organizational identification is consistent with our hypothesis, based on prior research, that the longer one remains with an organization the more salient the organizational membership becomes for self-categorization. The fact that tenure is not significantly associated with professional identification ( $t = 0.84$ ) supports the argument that development of professional identification precedes organizational identification.

Turning to the outcomes of identification and OPC, Figure 2a shows that, as expected, there is a significantly negative association between job satisfaction and turnover intention. Organizational identification is significantly related to both job satisfaction and turnover intention. As hypothesized, organizational identification has a positive influence on job satisfaction. However, opposite to our hypothesis, organizational identification has a positive relation with turnover intention ( $p < 0.05$ , two-sided test). That is, while higher identification with the accounting firm positively influences the auditor's job satisfaction, which in turn leads to a decline in turnover intention, the higher organizational identification is also directly associated

with an increase in intention to leave the firm. This result probably reflects the nature of turnover in accounting firms. It is not only auditors who weakly identify with their firm who tend to leave, but also successful employees who likely have strong firm identification, but who also have attractive opportunities outside the firm.

As hypothesized, OPC significantly and negatively influences job satisfaction, but the hypothesized direct effect on turnover intention is not significant ( $t=0.83$ ). This does not reduce the significance of OPC when it exists, only that it operates through its effect on job satisfaction.

As already noted, the three antecedents, professional image, job autonomy and audit effectiveness, that are hypothesized to positively influence professional identification have significant effects in the hypothesized direction. However, there is no support for a similar influence for the other two factors, tenure and gender, whose potential relation to professional identification was also explored. Figure 2b shows that, as predicted, tenure is negatively associated with turnover intention and positively associated with organizational identification. Also as hypothesized, gender is negatively related to turnover intention.<sup>8</sup>

## CONCLUSIONS AND IMPLICATIONS

This paper presents a comprehensive model of auditors' professional identification, organizational identification, organizational-professional conflict, and hypothesized antecedents and consequences. The model provides an acceptable fit to the responses of 252 Big 5 auditors, and explains a significant amount of variation in the auditors' job satisfaction and turnover intention. Professional image, job autonomy, and audit effectiveness are each found to be significantly associated with professional identification. In turn, professional identification is significantly associated with organizational identification. Organizational identification appears to play a critical role in auditors' relation to their firm. Organizational identification affects job satisfaction directly, and indirectly through its effect on organizational-professional conflict. As a result, greater organizational identification leads to less organizational-professional conflict,

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<sup>8</sup> To provide additional insight into the role of gender, we categorized all constructs by gender and tested for significant differences between genders. The only significant difference involved tenure (males: mean 139 months; females: mean 82 months,  $p<0.001$ ).

higher job satisfaction and, in turn, lower turnover intention. However, greater organizational identification also directly leads to higher turnover intention. The mean levels of professional identification and organizational identification are each well above the scale midpoint, while organizational-professional conflict is below the scale midpoint.

These results have several implications for accounting firms and the auditing profession. The Big 5 firms have been criticized for de-emphasizing the importance of the independent audit, and using the audit as a vehicle for selling other, more profitable services. To the extent that such criticisms are valid and these actions interfere with auditors meeting their professional responsibilities, a disconnect should arise between auditors' professional and organizational identifications. In turn, this should lead to heightened organizational-professional conflict. However, neither the levels of the relevant constructs nor the significant relations in our model suggest significant conflicts for the majority of Big 5 auditors in our study. Professional identification is relatively high (mean=3.68 on a five-point scale), and it is significantly and positively associated with organizational identification, but not significantly associated with organizational-professional conflict. Only 15% of our subjects report organizational-professional conflict above the scale's midpoint. These results are not consistent with auditors feeling pressured to sacrifice their professionalism on behalf of the firm's search for profits.

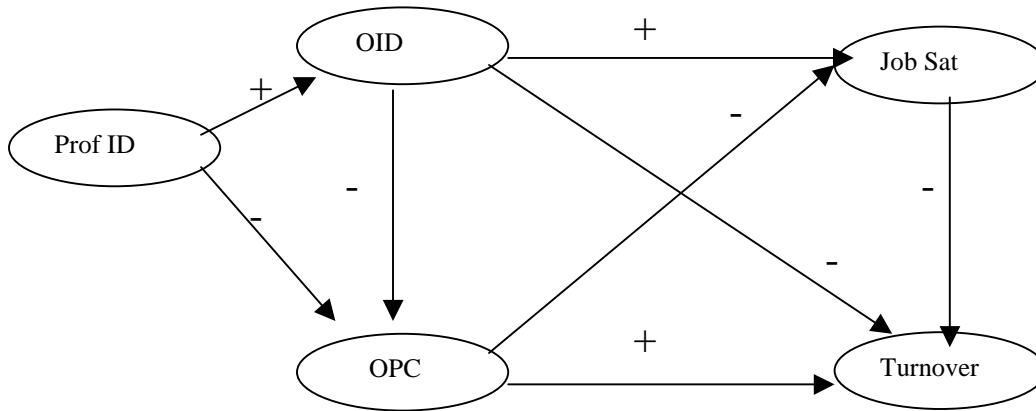
However, the results do point to the benefits of increased organizational identification (and its positive consequences) accruing to firms for supporting their auditors' professional identification. Rather than focusing exclusively on organizational identification, our results suggest that it is in the firms' interest to support and enhance their auditors' professional identification because of its positive association with organizational identification. To the extent that auditors feel they have insufficient job autonomy and that they are dissatisfied with the effectiveness of their firm's audit approach, professional identification is adversely affected and, moreover, there is a direct, negative effect on organizational-professional conflict. While more experienced auditors might be subject to greater conflict, we found no evidence of this. Tenure is positively associated with organizational identification (and negatively associated with turnover intent), but our analyses of model fit did not suggest a need to add any other relation

involving tenure.

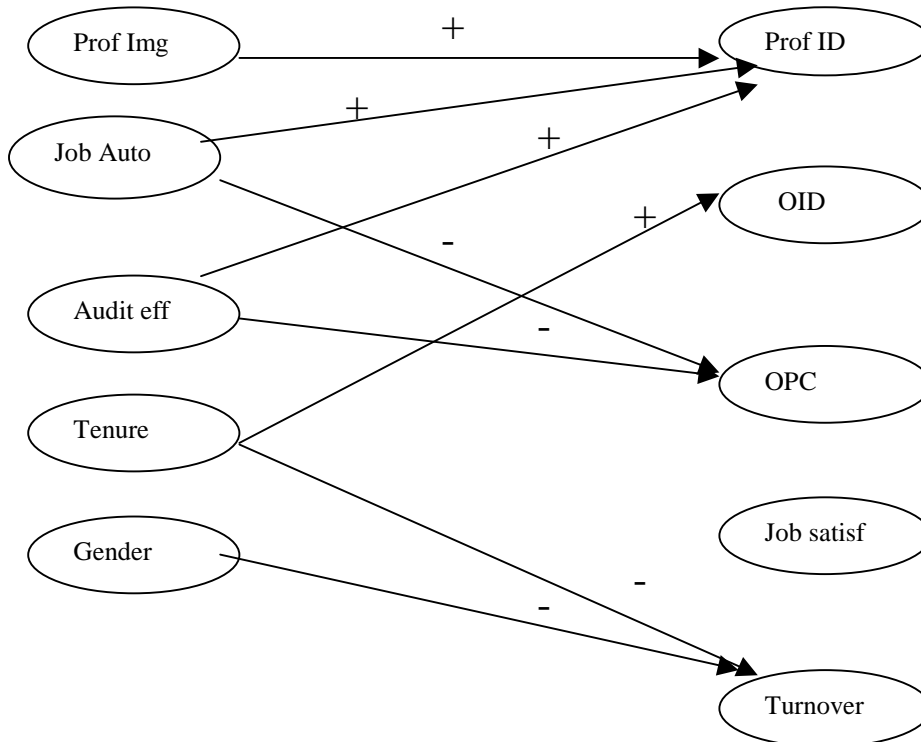
While the study's results suggest that organizational-professional conflict does not directly drive turnover, this is not to say that turnover is no longer a concern to accounting firms. In particular, we interpret the finding of a positive, direct relation between organizational identification and turnover intention as a sign that firms are losing some of their best, most committed employees. We doubt this is news to these firms, but our study empirically documents its occurrence. Importantly, our results suggest that this particular turnover is not driven by organizational-professional conflict. The turnover may result from an omitted variable endogenous to the firm. However, an alternative explanation is the external job opportunities available to these auditors. Our results confirm prior research's finding that turnover is higher for females. We find no other significant gender differences or relations. Rather than due to organizational-professional conflict, our lack of significant results are not inconsistent with Dalton et al.'s (1997) finding that work-life balance is the likely factor driving females' higher turnover.

Limitations associated with mail questionnaires, such as non-response bias, require caution in the interpretation of this study's results. Nevertheless, our results are noteworthy in that they suggest that some of the concerns expressed about professionalism and the position of auditing in Big 5 firms may not be as serious as had been suggested. Our results support the Panel on Audit Effectiveness' (POB 2000) positive conclusion on auditing effectiveness and, moreover, we find no evidence that the Panel's concern about "the tone at the top" is adversely affecting auditors' professionalism.

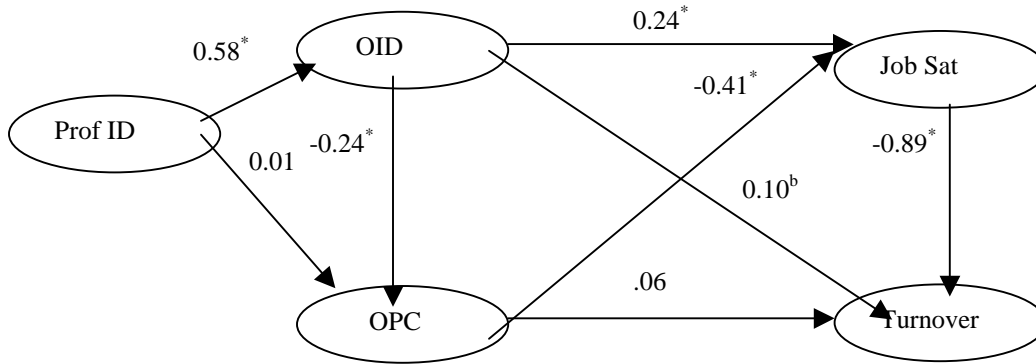
**FIGURE 1A**  
**Hypothesized Relations Among the Endogenous Variables (BETA)**



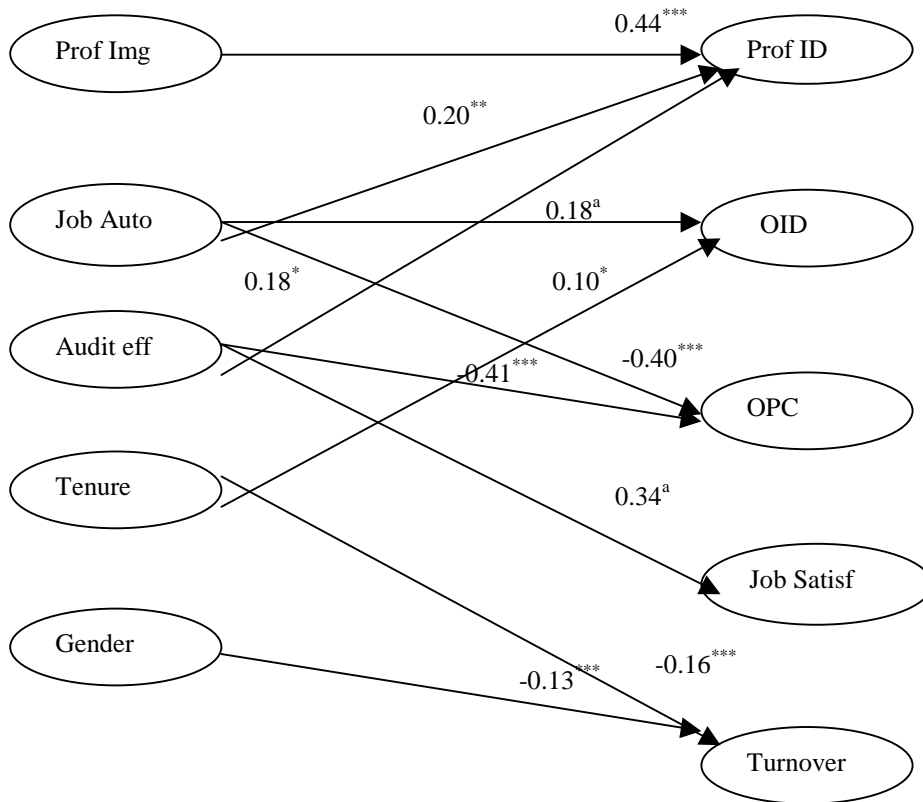
**FIGURE 1B**  
**Hypothesized Relations Between Exogenous and Endogenous Variables (GAMMA)**



**FIGURE 2A**  
**Relations Among the Endogenous Variables (BETA)**



**FIGURE 2B**  
**Relations Between Exogenous and Endogenous Variables (GAMMA)**



\*, \*\*, \*\*\* Significant at 0.05, 0.01 and 0.001 (one-tailed test), respectively. <sup>a, b</sup> Significant at 0.01 and 0.05 (two-tailed test), respectively. The numbers are the path coefficients.

**TABLE 1**  
**Descriptive Statistics on the Study's Variables**

<b><u>Variable</u></b>	<b><u>N</u></b>	<b><u>Mean</u></b>	<b><u>Median</u></b>	<b><u>St.Dev.</u></b>	<b><u>Min.</u></b>	<b><u>Max</u></b>
Professional Identification	252	3.68	3.80	0.63	1.20	5.00
Organizational Identification	252	4.23	4.20	0.66	1.20	5.00
Organizational-Professional Conflict	252	1.94	2.00	0.75	1.00	5.00
Job Satisfaction	252	4.11	4.33	0.77	1.00	5.00
Turnover Intention	252	2.66	2.70	1.06	1.00	5.00
Professional Image	252	4.17	4.25	0.58	2.25	5.00
Job Autonomy	252	4.15	4.00	0.69	1.00	5.00
Audit Effectiveness	252	3.15	3.00	0.69	1.67	5.00
Tenure (months)	251	123	80	104	18	456

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**TABLE 2**  
**Results of Confirmatory Factor Analysis**

**Goodness of fit**

$\chi^2$	492.36 (p<0.01)	
df	147	
Root Mean Square Error of Approximation (RMSEA)		0.088
Comparative Fit Index (CFI)		0.900
Incremental Fit Index (IFI)		0.900
Root Mean Square Residual (RMR)		0.051
Goodness-Of-Fit Index (GFI)		0.860
Adjusted Goodness-of-Fit Index (AGFI)		0.780

<u>Construct</u>	<u>Composite Reliability</u>	<u>Variance Extracted</u>
Professional Identification	0.74	0.49
Organizational Identification	0.90	0.75
Job Satisfaction	0.89	0.80
Turnover Intention	0.88	0.72
Professional Image	0.81	0.59
Job Autonomy	0.88	0.79
Audit Effectiveness	0.69	0.53

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**TABLE 3**  
**Results of Structural Equation Analysis (Revised Model)**

**Goodness of fit**

$\chi^2$	508.14 (p<0.01)
df	164
Root Mean Square Error of Approximation (RMSEA)	0.082
Comparative Fit Index (CFI)	0.900
Incremental Fit Index (IFI)	0.900
Root Mean Square Residual (RMR)	0.054
Goodness-Of-Fit Index (GFI)	0.860
Adjusted Goodness-of-Fit Index (AGFI)	0.800

**Squared Multiple Correlations for Structural Equations (R<sup>2</sup>)**

Professional Identification	42%
Organizational Identification	51%
Organizational-Professional Conflict	71%
Job Satisfaction	69%
Turnover Intention	88%

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