

Organizational learning and job satisfaction of trainee auditors: a case study of Chinese CPA firms

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Abstract

Purpose – This study aims to investigate the organizational learning of trainee auditors who represent the young generation of new entry-level professionals in CPA firms, and examines the possible associations between organizational learning and job satisfaction.

Design/methodology/approach – A questionnaire survey is administered among the target group of trainee auditors to explore possible approaches to their organizational learning in CPA firms. The results are used to generate organizational learning variables, which enable us to empirically test the research hypotheses regarding the association between organizational learning and job satisfaction.

Findings – The authors conclude that there are three main dimensions of organizational learning for new entry-level professionals in CPA firms, namely: workplace interactions, supervising and monitoring and supportive informational systems. The authors also find that workplace interactions and supportive information systems are significantly associated with job satisfaction. The authors show that the females and males prefer different approaches to organizational learning in CPA firms. The authors also find that trainee auditors who work for bigger CPA firms enjoy more job satisfaction than those working for smaller CPA firms, and that male trainee auditors are more easily satisfied with audit jobs than female trainees.

Research limitations/implications – This study is limited in that its sample is composed of trainee auditors, who are used to proxy for entry-level professionals in CPA firms. Future studies can include a direct focus on the organizational learning of junior auditors in CPA firms. Future studies can also investigate organizational learning in the firm-wide context in which CPA firms and their employees are considered as part of a larger situational process of organizational learning.

Practical implications – The conclusions can help to improve practice management and human resource policies in CPA firms. The findings highlight the importance of establishing an effective organizational learning culture, and suggest how this can be achieved by providing friendly and instructive workplace interactions, helpful supervisory and mentoring relationships, and better information support.

Originality/value – This study contributes to the audit literature by identifying the three dimensions of organizational learning for entry-level professionals in CPA firms. The authors substantiate the argument that mentor-protégé relationships in CPA firms have different effects on job satisfaction for female and male trainee auditors.

Keywords Job satisfaction, Gender, Firm size, Organizational learning, Trainee auditors

Paper type Research paper



Introduction

Both organizational learning and job satisfaction have been popular topics of research in the business and organizational literature (Egan *et al.*, 2004; Chiva and Alegre, 2009). Various theories of Organization have been applied to assess the facets and functions of organizational learning (Watkins and Marsick, 2003; Crossan and Berdrow, 2009). The

association between organizational learning and job satisfaction has also been investigated through numerous empirical studies (Egan *et al.*, 2004; Wang, 2007; Mirkamali *et al.*, 2011). Organizational learning has been widely observed to have a significant influence on job satisfaction, especially for new entry-level employees (Alan and David, 1998). However, very few researchers have investigated the effects of organizational learning on job satisfaction for entry-level professionals in CPA firms (Russell *et al.*, 2003; Breaux *et al.*, 2009). As CPA firms are typically knowledge- and experience-intensive workplaces, organizational learning is likely to be an important factor in job satisfaction, especially for young, entry-level professionals.

This study aims to investigate the quality of organizational learning as experienced by trainee auditors in a six-month auditing work placement programme. These trainees represent the young generation of entry-level professionals in CPA firms, and their experiences may reveal the associations between organizational learning and job satisfaction for new entrants to the profession. Offering good organizational learning opportunities to new entry-level professionals can act as an attractive means for CPA firms to retain young talent, to replenish the ageing and retiring employees, and to keep the public accounting profession growing in a healthy way.

We select young entry-level audit professionals in Chinese CPA firms as the subjects for this study. We adopted two empirical testing approaches, clustering process and regression tests, for answering the two research questions, based on the data collected from the questionnaire responses.

From the results of our process in clustering the questionnaire responses, we identify three major dimensions of organizational learning for new entry-level professionals in CPA firms, namely: workplace interactions, supervising and monitoring and supportive informational systems. We conclude that workplace interactions and supportive information systems are significantly associated with job satisfaction. Furthermore, our empirical tests show that the female and male subsets of our trainee auditor sample prefer different approaches to organizational learning, and that male trainees are more easily satisfied with audit jobs than female trainees. We also find evidence that trainee auditors who work for bigger CPA firms enjoy greater job satisfaction than those working for smaller CPA firms.

Such audit professionals are in growing demand in emerging markets, and there is an urgent need for appropriate resources to enable work-related education and training for new entrants. The auditing profession and audit training have recently attracted increased attention from researchers in the field of Chinese accounting education (Liu, 2012).

The Chinese setting in which this study is rooted represents well in many respects the emerging markets in the world. China's rapid economic growth in the most recent decades has created a demand for a healthy auditing profession. With the international audit firms introduced into China's audit markets, the Chinese auditing professional environment has been greatly improved. Meanwhile, the cooperative accounting education practice via mandatory work placement at both international and local audit firms proves to be a good way of educating audit professionals and securing their future careers.

Our study contributes to the audit literature by identifying the three dimensions of organizational learning for entry-level professionals in CPA firms. We also substantiate the argument that mentor-protégé relationships in CPA firms have different effects on job satisfaction for female and male trainee auditors. Our research findings may help to bridge the public accounting profession's gaps between the practice management applied in developed markets and that in emerging or transitory markets.

Literature review, research questions and the related research hypothesis

Previous Organization studies have proved that friendly working environments help employees to increase their levels of satisfaction at work. [Strawser et al. \(1969\)](#) find that a relaxing and joyful workplace atmosphere helps employees to achieve higher levels of fulfilment in terms of Maslow's classification of personal needs. [Carpenter and Strawser \(1971\)](#) conclude that both job security and organizational learning play important roles in an employee's self-actualisation. However, friendly workplace environments and good work relations are not the same as organizational learning, even though it has been widely accepted that friendly workplace environments and work relations contribute to effective organizational learning ([Lankau and Scandura, 2002](#)).

[Ortenblad \(2001\)](#) reviews the old and new conceptualisations of organizational learning in the organizational literature. In the old perspective on organizational learning ([Huber, 1991](#); [Kim, 1993](#)), individuals acquire storable knowledge concerning the profession and the Organization by operating as individual learners. In the new perspective ([Brown and Duguid, 1991](#); [Cook and Yanow, 1993](#)), knowledge is context-dependent, and the Organization's collective knowledge is not storable, but exists as a situational process. As [Ortenblad \(2001\)](#) explains the new perspective, humans are social beings, and it is preferable to view organizational learning as the collective group's situational process of participation, rather than an individual's acquisition of information.

More recent Organization studies have shed light on the associations between organizational learning and job satisfaction. [Mirkamali et al. \(2011\)](#) study the effects of mentoring-based learning on employees' job attitudes and turnover intentions, finding that job satisfaction and intention to leave a job are consequences of how organizational learning is handled. [Egan et al. \(2004\)](#) reveal the significant influence of organizational learning on job satisfaction. [Chou and Robert \(2008\)](#) document a positive association between job satisfaction and the levels of instrumental and emotional support provided by institutions, supervisors and coworkers. [Mohr and Zoghi \(2008\)](#) find that organizational learning (via high-involvement work practices) has a positive effect on job satisfaction. [Wang et al. \(2010\)](#) suggest that there are direct associations among the factors of organizational learning, organizational commitment and job satisfaction. [Wang \(2007\)](#) shows that a healthy organizational learning culture results in higher job satisfaction and organizational commitment.

Some papers have specifically focussed on the association between organizational learning and job satisfaction for newcomers in business organizations. [Morrison \(1993\)](#) explores the modes, sources and outcomes of personal learning by newcomers, and finds that information-seeking is the most crucial element in organizational learning for new entrants.

Research on the associations between organizational learning and job satisfaction has been extended into various industries and professions ([Egan et al., 2004](#); [Wang et al., 2010](#)). However, very few accounting scholars have investigated the associations between organizational learning and job satisfaction, even though the public accounting profession is a highly knowledge-intensive sector and CPA firms are knowledge-based organizations that are largely dependent on the expertise, experience and skills of their employees. Organizational learning can hardly be found as a research topic in the audit literature or in the available empirical studies on audit firms.

Some earlier papers have touched on the topic of job satisfaction in the public accounting profession. [Strawser et al. \(1969\)](#) conclude that accounting professionals follow the same hierarchy as is articulated in Porter's classification of needs. [Aranya et al. \(1982\)](#) find that the factors of accountants' job satisfaction and intent to leave their Organization are both

influenced by professional commitment, organizational commitment and work need deprivation. Recent studies relate to accounting professionals' earlier internship experience to their future professional promotions (Borgia *et al.*, 2014).

Most accounting papers that relate job satisfaction to organizational learning among entry-level professionals are limited to the study of supervisory actions or of mentor-protégé relationships. In CPA firms, supervisory actions mainly involve leadership and mentoring, working conditions and work assignments (Patten, 1995; Clabaugh *et al.*, 2000; Sweeney and Boyle, 2005). Even when they adopt the same definitions of supervisory actions in CPA firms, different scholars produce differing and controversial results concerning the relationships between job satisfaction and supervisory actions. In reviewing a survey of US entry-level accountants working in CPA firms, Patten (1995) concludes that employees in smaller firms report higher levels of job satisfaction, due to receiving more effective supervisory actions than employees who work in Big Six firms. The survey results in Clabaugh *et al.* (2000) indicate that supervisory actions are significantly associated with overall job satisfaction. However, Sweeney and Boyle (2005) find the opposite results from Irish entry-level accountants, indicating that there is a negative correlation between job satisfaction and supervisory actions in CPA firms. Herbohn (2004) summarises different job satisfaction dimensions in public accounting practice.

Many studies on mentorship in public accounting report a positive effect of mentor-protégé relationships on organizational commitment and on intentions of staying in the public accounting profession (Stallworth, 2003; Herbohn, 2004; Hall and Smith, 2009). Some studies report that using video tutorials can help students enhance independent learning skills (Luke and Hogarth, 2011).

Nowadays, with CPA firms becoming knowledge-based organizations because of the increasing demand for special expertise, both organizational learning and job satisfaction have become crucial topics in audit studies. These factors are related to the knowledge management practices of audit firms and to the career development of new generations of workers in the audit profession. Thus, we propose the following two research questions in this study:

- RQ1. How do CPA firms provide young entry-level professionals with organizational learning?
- RQ2. How does organizational learning affect the job satisfaction of young entry-level professionals in CPA firms?

The answers to the first research question lead to our new classification of the key organizational learning dimensions as they specifically relate to CPA firms. For the second research question, we conjecture that the key dimensions of organizational learning have significant effects on the job satisfaction of young entry-level professionals in audit firms. Thus, we hypothesise as follows:

- H1. The three key organizational learning dimensions generated from the clustering process are significantly associated with the job satisfaction of trainee auditors.

Research methodology

General description of empirical testing methods

We adopted two empirical testing approaches for answering the two research questions, based on the data collected from the questionnaire responses. The clustering process was used to group all of the questionnaire items in the organizational learning scale into major

factors, as a means to proxy the construct of organizational learning in CPA firms. The second research question was answered by a series of regression tests, which included the proxies of the organizational learning dimensions that we summarised from the clustering process.

In this section, we introduce our design and administration of the questionnaires, and our related measurement scales.

Design of questionnaires and administering controls over the survey

During their six-month auditing work placement periods, trainee auditors are assigned a large variety of audit-related practices and training activities by their CPA firms. These young entry-level professionals, who have just finished their university education in accounting, are exposed to multiple channels of organizational learning. Placing these trainee auditors in an environment of effective organizational learning is an appropriate way of equipping them with practical audit knowledge, techniques and social skills such as interpersonal communication or networking (Liu, 2012).

The measurements included in our survey questionnaires were adapted from the literature on organizational learning and job satisfaction. To design the questionnaires for a focus on organizational learning and job satisfaction in CPA firms, we started by interviewing a group of trainee auditors who had recently finished their six-month auditing work placements in CPA firms. Their descriptions of their work experiences enabled us to produce a list of the learning activities available to our subjects. Then we referred to the analysis of the contexts for organizational learning in certified public accountancy as presented by Watkins and Cervero (2000), which helped us to finalise the design of a ten-item questionnaire for organizational learning (Table I).

Our design of the questionnaire was initiated by a brainstorming session with a representative group of trainee auditors. This group discussed the factors of organizational learning that they had experienced in their recently finished audit firm work placements. The 10 most important items were selected by ranking the frequency with which they were reported. To finalise the organizational learning questionnaire items, we included a number of survey questions used in the literature on mentor-protégé relations in CPA firms (Herbohn, 2004; Hall and Smith, 2009). We conjectured that the process of organizational learning in CPA firms would include more than the functions of mentor-protégé relations. Our ten organizational learning questionnaire items were measured on a seven-point Likert scale, and they resulted in a Cronbach's alpha (α) of 0.882 (Table III).

Table I.
Questionnaire for
trainee auditors'
organizational
learning in CPA
firms

Code	Questionnaire items
OL1	Learn from interpersonal exchanges in the CPA firm
OL2	Learn from colleagues' sharing of past work experiences
OL3	Learn from practice guidance of colleagues in the CPA firm
OL4	Learn from case discussions organised by the CPA firm
OL5	Learn from job training in the CPA firm
OL6	Learn from instructions of the firm's audit software/systems
OL7	Learn from the library collection in the CPA firm
OL8	Learn from the firm's quality control and supervision
OL9	Learn from the firm's website and other online resources
OL10	Learn from the exchanges in the firm's intra-networks

Several measurements for job satisfaction were adopted in the design of our scale for trainee auditors' job satisfaction in CPA firms. Our first questionnaire item, concerning overall job satisfaction, and the fourth item, on organizational commitment, were both taken from the scale developed by [Chen \(2009\)](#). The second item, which is related to interpersonal relationships in the workplace, was adopted from [Al-Rubaish *et al.* \(2011\)](#) and the third item, relating to turnover intention, was adopted from [Dole and Schroeder \(2001\)](#). Thus, our scale included items on job satisfaction, turnover intention and organizational commitment ([Table II](#)).

To ensure the truthful presentation of the measured variables in this study, we administered the whole survey with anonymity, with an introductory section that stated the research purposes of the questionnaire. A pilot study was conducted among 30 trainee auditors from the population of target survey respondents before determining the finalised version of our questionnaire. This pilot study helped to assure the research validity of each questionnaire item and of the entire questionnaire.

Upon completion of their auditing work placements, all of the trainee auditors were evaluated and graded by the administrative staff of both the university and the CPA firms. The survey questions were distributed to the target respondents before May Day. The trainee auditors were invited to complete the questionnaires anonymously, and they were told that their answers would not be counted as any part of their grading results. They handed in the questionnaires shortly after the brief school break. The questionnaire used in this survey was written in Chinese, and it used a seven-point Likert scale (the questionnaire is available to interested readers on request to the author).

Subjects and data collection

Our finalised survey was conducted in May 2015 with 205 accounting trainee auditors who had just finished their six-month auditing work placements with 3 of the Big Four auditing firms and 14 other well-recognised local CPA firms in South China. All of the trainee auditors in our survey were junior accounting majors from a top state university in South China. They were randomly assigned to the 17 CPA firms with which the school accounting department had established close relationships, and which had signed bilateral cooperation agreements regarding auditing work placements, exchanges of expertise, training programmes and future job recruitments.

During their auditing work placements, the student trainee auditors were required to follow the guidance of the CPAs or certified taxation consultants from their host firms in practising the accounting, auditing and taxation services provided to the firms' clients. All of the auditing work placements under investigation were scheduled in the peak times, from around the year-end to late April, when nearly all CPA firms were busy with statutory audits and taxation services for their clients. The uniform requirement that Chinese listed companies must issue their annual reports and auditor reports within the first quarter was noted in scheduling the auditing work placements.

Code	Questionnaire items
JS1	How well are you satisfied overall with the job assignments in the CPA firm?
JS2	How well are you satisfied with the interpersonal relationships in the CPA firm?
JS3	How willingly will you recommend this CPA firm to the next generation of interns?
JS4	How willingly will you accept a job offer given by the CPA firm?

Table II.
Questionnaire for
trainee auditors' job
satisfaction in CPA
firms

We exercised a strict review of all of the 205 responses, which resulted in a research sample of 149 effective answers, accounting for about 73 per cent of the target population. The following empirical tests were conducted on the 149 effective responses collected from our target pool of subjects.

A clustering approach to analysing organizational learning in CPA firms

Clustering of observed data

Table III describes the survey results from the measurement scale on organizational learning. The 149 effective responses from the trainee auditors composed the population under investigation. Some important factors were identified because of their higher scores, such items OL1, OL2 and OL3. Usage of firm libraries and websites had minor importance for the young professionals' organizational learning. The scale as a whole showed good construct validity, with the Cronbach's alpha value being 0.882.

Watkins and Cervero (2000) describe seven dimensions for organizational learning in the certified accounting profession. Their study indicates that factors such as continuous education, consulting and communication, group discussion and networking are highly valued in the process of organizational learning in CPA firms. Their classification of informal and formal learning in organizations results from descriptions of a survey conducted in two case scenarios.

We adopted the clustering approach for exploring the most important dimensions of organizational learning in CPA firms. Clustering is a process used to divide the data into a number of theme-related groups. We performed a hierarchical cluster analysis, combining all of the items in the organizational learning questionnaire. We further constructed a dendrogram as part of the output. We selected the hierarchical clustering approach and the squared Euclidean distance (default) method for determining the distance between clusters, and used the furthest-neighbour method for clustering. A three-cluster solution was considered as the maximum number of clusters on the basis of the agglomeration schedule, as the difference between Stage 2 and Stage 3 was the largest among the lower stages.

Figure 1 lists the details of the three maximum clusters. Questionnaire items OLs nos. 7, 9 and 10 are included in one cluster; OLs 4, 5, 6 and 8 are grouped into the second cluster; and OLs 1, 2 and 3 comprise the third cluster.

Table III.
Summary of scale for
organizational
learning in CPA
firms

Questionnaire items	Minimum	Maximum	Mean	SD
OL1. Learn from interpersonal exchanges in the CPA firm	1.00	7.00	5.3758	1.0621
OL2. Learn from colleagues' sharing of past work experiences	1.00	7.00	5.5034	0.9489
OL3. Learn from practice guidance of colleagues in the CPA firm	1.00	7.00	5.4430	1.3069
OL4. Learn from case discussions organised by the CPA firm	1.00	7.00	4.1409	1.5335
OL5. Learn from job training in the CPA firm	1.00	7.00	4.1275	1.5125
OL6. Learn from instructions of the firm's audit software/systems	1.00	7.00	4.4430	1.3822
OL7. Learn from the library collection in the CPA firm	1.00	7.00	3.3221	1.5908
OL8. Learn from the firm's quality control and supervision	1.00	7.00	4.0940	1.4857
OL9. Learn from the firm's website and other online resources	1.00	7.00	3.5369	1.6003
OL10. Learn from the exchanges in the firm's intra-networks	1.00	7.00	3.7315	1.6751

Note: Scale's Cronbach's alpha = 0.882

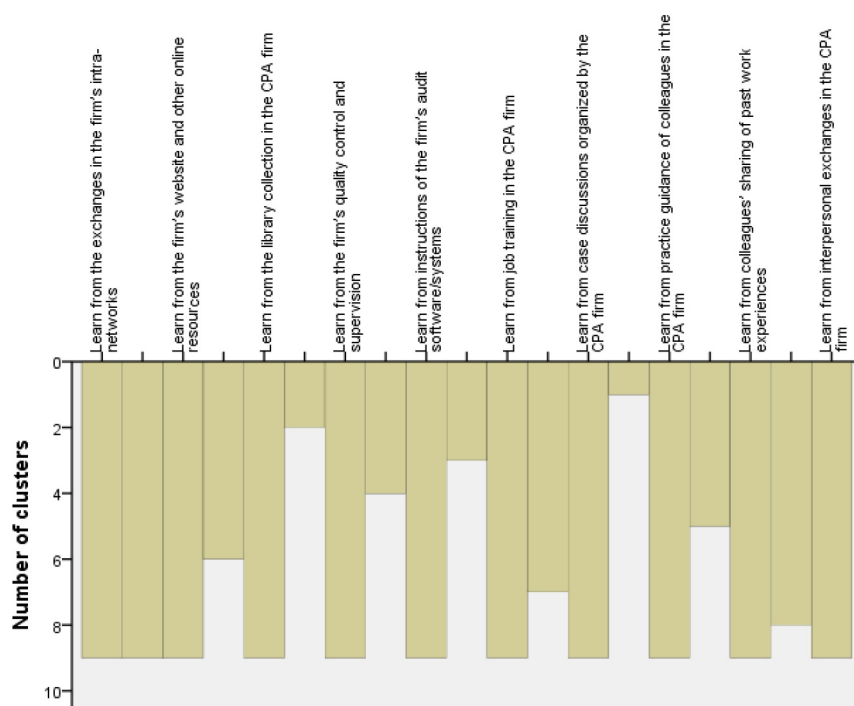


Figure 1.
Number of clusters

Results and discussion

The results from the clustering process are illustrated in [Figure 2](#) and [Table IV](#). As indicated in the description of the clustering process, all 10 of the questionnaire items are grouped into three new clusters. Cluster 1 contains items L1, L2 and L3, which we summarise as “organizational learning via workplace interactions”, and which we label as *EXCHANGE*. Cluster 2 contains items L4, L5, L6 and L8, which we summarise as the “organizational learning via supervising and mentoring”, and which we label as *MENTORING*. Cluster 3 contains items L7, L9 and L10, which we summarise as the “organizational learning via supportive information systems”, and which we label as *SUPPORT*.

[Table V](#) presents the ANOVA tests on the clustering process results, namely the three newly identified dimensions of organizational learning in CPA firms. All of the three clusters are valid statistically in both the between-group and within-group tests.

Theoretically, the three dimensions of organizational learning in CPA firms that result from our clustering process are substantively consistent with the conclusions on organizational learning given in the management literature. This consistency helps to validate the clustering results of this study, and it illustrates that CPA firms follow organizational learning dimensions that are similar to those depicted in general Organization studies.

First, the dimension of workplace interactions (*EXCHANGE*) represents the contributions of friendly and supportive workplace interactions. This dimension corresponds well to the description of friendly and helpful workplace environments presented by [Lankau and Scandura \(2002\)](#).

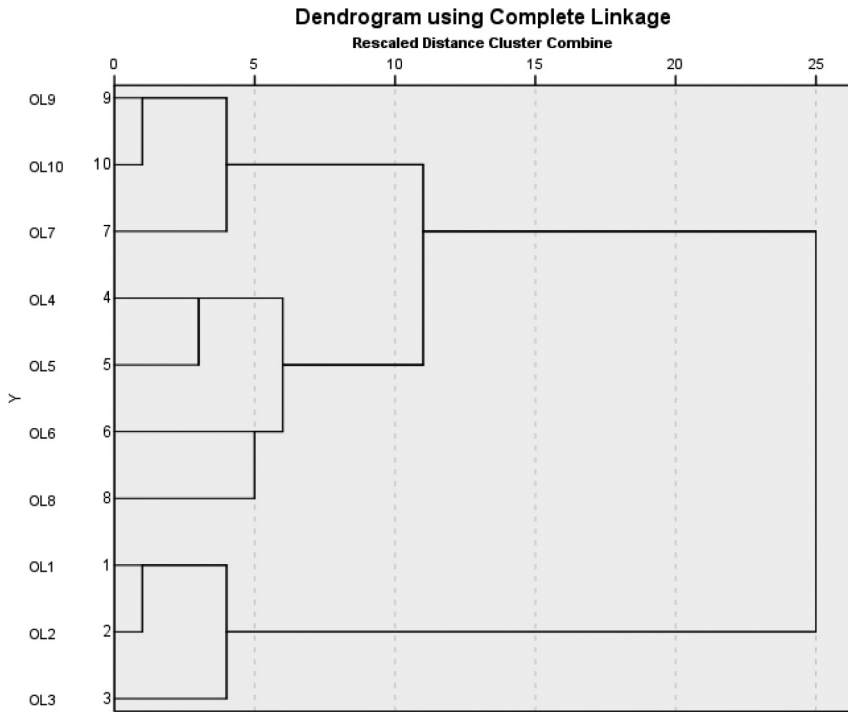


Figure 2.
Clustering process:
dendrogram using
complete linkage

New variables generated	Labelling	Questionnaire items included
Cluster 1: workplace interactions	Exchange	OL1. Learn from interpersonal exchanges in the CPA firm OL2. Learn from colleagues' sharing of past work experiences OL3. Learn from practice guidance of colleagues in the CPA firm
Cluster 2: supervising and mentoring	Mentoring	OL4. Learn from case discussions organised by the CPA firm OL5. Learn from job training in the CPA firm OL6. Learn from instructions of the firm's audit software/systems OL8. Learn from the firm's quality control and supervision
Cluster 3: supportive information systems	Support	OL7. Learn from the library collection in the CPA firm OL9. Learn from the firm's website and other online resources OL10. Learn from the exchanges in the firm's intra-networks

Table IV.
Results from the
clustering process

Second, the dimension of supervising and mentoring mechanisms (*MENTORING*) also fits with the conceptualisations offered by [Lankau and Scandura \(2002\)](#) on the positive contributions of mentorships for effective organizational learning. Furthermore, the dimension of *MENTORING* compliments the findings of [Herbohn \(2004\)](#), which show that mentoring relationships are associated with lower turnover intentions and higher job satisfaction in the career development of public accountants. This dimension also matches the work by [Mirkamali et al. \(2011\)](#), which predicts the positive role of mentors in organizational learning. In particular, this dimension of organizational learning pertains to

the crucial functions of mentoring in the audit profession, as articulated in the study by Hall and Smith (2009).

Third, the dimension of supportive information systems (*SUPPORT*) relates to the key role of information seeking in newcomer's organizational learning, as is designated by Morrison (1993). This finding is also consistent with the conclusion of Lankau and Scandura (2002) regarding the positive functions of a supportive expertise repository in developing the professional knowledge and skills of newcomers.

In general, the three dimensions of organizational learning generated from the clustering process in this section extend the scope of study on organizational learning in CPA firms, which has previously focused only on mentor-protégé relations. Effective workplace interactions and supportive information systems are also important devices for organizational learning, especially for young entry-level professionals who have yet to engage themselves in a stable mentor-protégé relationship.

Table V summarises the results of ANOVA on the three clustering groups. Accordingly, the new scale for organizational learning in CPA firms is significantly validated. Table VI provides the construct validity, which has an acceptable Cronbach's alpha value of 0.735.

An empirical test on organizational learning and job satisfaction in CPA firms

In the previous section, we answered the first research question of this study. We classified organizational learning for young entry-level professionals into three dimensions, i.e. workplace interactions, supervising and mentoring and supportive information systems. Based on this classification, we can answer the second research

	Sum of squares	ANOVA			Sig.
		df	Mean square	F	
<i>Cluster 1</i>					
Between	40.632	22	1.847	3.040	0.000
Within	76.539	126	0.607		
Total	117.171	148			
<i>Cluster 2</i>					
Between	59.666	22	2.712	2.318	0.002
Within	147.418	126	1.170		
Total	207.085	148			
<i>Cluster 3</i>					
Between	84.703	22	3.850	1.963	0.011
Within	247.077	126	1.961		
Total	331.781	148			

Table V.
Test on results from
clustering process

New variables generated	Minimum	Maximum	Mean	SD
1 Exchange	1.33	7.00	5.4407	0.8898
2 Mentoring	1.00	7.00	4.2013	1.1829
3 Support	1.00	7.00	3.5305	1.4975
Scale's Cronbach's alpha = 0.735				

Table VI.
Summary of results
from the newly
generated
organizational
learning scale

question by testing the effects of organizational learning on job satisfaction among young entry-level professionals in CPA firms. The conceptualisation and measurement of job satisfaction was explained in the foregoing section on research methodology. Now, the newly generated variables are used in the following empirical tests as the key explanatory factors, and certain control variables are considered.

Selection and measurement of the control variables

Firm size is a key factor affecting the job satisfaction of public accountants. [Dinius and Rogow \(1988\)](#) note the differences in young staff recruitment procedures between bigger and smaller firms. [Strawser et al. \(1969\)](#) find that public accountants of medium and small firms report significantly lower perceived satisfaction than their counterparts in big firms. [Herbohn \(2004\)](#) finds that the size of an accounting firm has some bearing on the job satisfaction of public accountants. However, the literature presents some controversial views on the effects of firm size on job satisfaction. [Patten \(1995\)](#) concludes that smaller CPA firms do a better job in providing their employees with friendly workplace conditions and effective supervision, which leads to a higher degree of job satisfaction. The survey results reported by [Clabaugh et al. \(2000\)](#) indicate that there are significant differences in the quality of supervisory actions, which lead to significant differences in job satisfaction between the employees of Big Five and non-Big Five auditors. [Sweeney and Boyle \(2005\)](#) provide evidence that the entry-level professionals in Big Five firms report higher levels of job satisfaction than those who are working for non-Big Five firms.

Gender is an also important factor that influences job satisfaction. [Reed et al. \(1994\)](#) suggest that at the entry level, accounting has become a gender-neutral profession. [Grandlee and Barrett \(1993\)](#) find that male and female accountants give different ratings on the personality characteristics and job features needed for job satisfaction, with the females showing higher levels of job satisfaction in general. [Glover et al. \(2000\)](#) report that male and female African-American accountants exhibit similar attitudes concerning job satisfaction.

Most of the research papers reviewed above indicate that both firm size and gender play important roles in explaining job satisfaction in the public accounting profession. In considering the conflicting results of these studies regarding the effects of firm size and gender on job satisfaction, we decide to include these factors as control variables in the regression models of our study.

Regression Model:

$$SATISFACTION = \alpha + \beta_1 EXCHANGE + \beta_2 MENTORING + \beta_3 SUPPORT + \beta_4 FIRMSIZE + \beta_5 GENDER + \varepsilon \quad (\text{Model 1})$$

where:

SATISFACTION = Job satisfaction of trainee auditors after their six-month audit practices in CPA firms.

EXCHANGE = Collegial communication on job assignments between trainee auditors and their colleagues in CPA firms.

MENTORING = Supervising and mentoring mechanisms established by CPA firms for their new and younger employees.

SUPPORT = Firm-wide information and expertise systems available to all employees.

- FIRMSIZE* = The scale of CPA firms, with small- and medium-sized domestic firms valued as 1, large domestic firms valued as 2, and Big Four firms valued as 3. Domestic firms are classified on the basis of the ranking of the Chinese Institute of CPAs.
- GENDER* = Gender of the surveyed trainee auditors, with a value of 1 for a female and 0 for a male.

Empirical results and analysis

Table VII reports the descriptive statistics for the model variables affecting job satisfaction. The mean values of the studied variables are all higher than average (3.5). The surveyed trainee auditors report higher than average satisfaction with their auditing work placements (mean value of 4.6678), with the highest mean value for workplace interactions, and the lowest for supportive informational support. The mean values of *FIRMSIZE* and *GENDER* indicate that most of the surveyed trainee auditors are from domestic big firms, and that there is a female-dominant characteristic in the Chinese public accounting profession.

Table VIII reports the regression results for testing our research hypothesis that organizational learning significantly affects the job satisfaction of new entry-level professionals in CPA firms. This hypothesis is therefore partly supported. The organizational learning of new entry-level professionals in CPA firms can be categorised into three dimensions, and the regression results provide support for our research hypothesis in regard to two of these dimensions, namely, workplace interactions and supportive informational systems. This finding means that effective workplace interactions and supportive informational systems significantly increase the job satisfaction of entry-level professionals in CPA firms. These findings are consistent with the conclusion regarding the positive effects of a friendly workplace atmosphere, as reported in earlier organizational studies such as those of Strawser *et al.* (1969). These findings also uphold the conclusion that supportive information searching can help to increase the young employees' intentions to retain their jobs in CPA firms (Morrison, 1993). Our evidence confirms that organizational learning, in the forms of effective workplace interactions and supportive informational systems, can significantly increase job satisfaction for new entry-level auditors.

Our regression results, being based on the total sample population, do not show significant support for the positive effects of mentor-protégé relationships on new entrants or on junior auditors' turnover intentions, although such positive effects are documented in the prior audit literature (Herbohn, 2004; Hall and Smith, 2009). This difference between our findings and the conclusions reached in other studies can be plausibly explained by the fact

	<i>N</i>	Minimum	Maximum	Mean	SD
Satisfaction	149	1.00	7.00	4.6678	1.24236
Exchange	149	1.33	7.00	5.4407	0.88977
Mentoring	149	1.00	7.00	4.2013	1.18289
Support	149	1.00	7.00	3.5302	1.49725
Firmsize	149	1.00	3.00	1.9060	0.62970
Gender	149	0.00	1.00	0.7047	0.45772
Valid <i>N</i> (likewise)	149				

Table VII.
Descriptive statistics

Model 1	Unstandardised coefficients		Standardised coefficients		Sig.
	β	Std. error	β	t	
(Constant)	0.519	0.599		0.866	0.388
Exchange	0.463	0.109	0.331	4.232	0.000***
Mentoring	0.08	0.127	0.076	0.626	0.533
Support	0.17	0.094	0.205	1.806	0.073*
Firmsize	0.495	0.14	0.251	3.542	0.001***
Gender	-0.348	0.204	-0.128	-1.712	0.089*
<i>Model Summary</i>					
	R	R^2	Adj. R^2	S.E.	
	0.549	0.301	0.277	1.05642	
<i>ANOVA</i>					
Sum of squares	df	Mean square	F	Sig.	
Regression	68.839	5	13.768	12.336	0.000***
Residual	159.592	143	1.116		
Total	228.43	148			

Table VIII.
Regression results
for the entire
population

Notes: ***Significant at the 0.01 level, $p < 0.01$; **significant at the 0.05 level, $p < 0.05$; *significant at the 0.10 level, $p < 0.10$

that the trainee auditors engaged in this study were not officially recruited employees in CPA firms, but temporarily assigned trainee auditors. Therefore, in our sample, there could be no formal mentor-protégé relationships between the trainee auditors and the firm managers or supervisors. This lack of mentor-protégé relationships seemingly leads to a finding that supervising and mentoring has an insignificant effect on job satisfaction for the trainee auditors under investigation. However, our additional tests with the sample population divided by gender indicate that there are opposite effects of supervising and mentoring relationships on the job satisfaction of male and female trainees. This finding indicates that females and males perceive the benefits of mentor-protégé relationships in different ways.

Table VIII also shows the effects of the selected control variables on job satisfaction. We observe that firm size is positively correlated with job satisfaction (significant at the 0.01 level), which is consistent with the finding of Strawser *et al.* (1969). We also observe that the trainee auditor's gender is negatively correlated with job satisfaction (significant at the 0.10 level), which means that the female audit trainee auditors perceive less job satisfaction in CPA firms than their male counterparts. This finding supports the different ratings of job satisfaction between male and female accountants reported by Granleese and Barrett (1993), and it provides evidence contrary to the conclusion of Glover *et al.* (2000) that male and female accountants exhibit similar attitudes concerning job satisfaction.

Additional test on the collinearity of explanatory variables

As bivariate correlation analysis shows that most of our key explanatory variables (EXCHANGE, MENTORING and SUPPORT) are significantly correlated, we select additional collinearity tests to ease our concerns with this potential statistical problem. We have tested the variance inflation factors (VIF) for all of the explanatory variables of this study. As indicated by the predicted VIF values, which are all smaller than 10, there is no need to treat the collinearity problem in our regression model.

Additional tests with break-downs of the population

The effects of gender on job satisfaction are further explored by breaking down the entire population into subsets of male and female trainee auditors. The following regression model is run on these two subsets:

$$SATISFACTION = \alpha + \beta_1 EXCHANGE + \beta_2 MENTORING + \beta_3 SUPPORT + \beta_4 FIRMSIZE + \varepsilon \quad (\text{Model 2})$$

where all the studied variables are defined as in Model 1.

Table IX reports the regression results on two subsets of the population, divided by the trainee auditors' gender. The effects of workplace interactions on organizational learning and firm size are significantly positive for both females and males. However, the supervising and mentoring dimension of organizational learning has differing effects on the job satisfaction of females and males. The supervising and mentoring dimension of organizational learning contributes positively to the female trainee auditors' job satisfaction, but supportive informational systems have no significant effect on their job satisfaction. In contrast, male trainee auditors report a negative effect of the supervising and mentoring dimension of organizational learning, and they tend to be more satisfied with the supportive informational systems in their CPA firms. This finding suggests that female and male trainee auditors prefer different approaches to organizational learning. The females are more satisfied with the workplace interactions and the supervisory or mentor-protégé relationships, whereas the males are more satisfied with the workplace interactions and the supportive informational systems.

Summary and conclusions

The relationship between organizational learning and job satisfaction has been an important topic of research in the literature on Organization studies. However, few auditing researchers have applied such research to the certified public accounting profession, despite the importance of extensive knowledge and learning in this profession. Our study intends to fill this gap in research by exploring the unique situation of organizational learning by

Model 2	Female subset standardised coefficients		Male subset standardised coefficients		
	β	t	β	t	
(Constant)		-0.036		0.781	
EXCHANGE	0.267	2.951***	0.403	3.127***	
MENTORING	0.261	1.893**	-0.400	-1.808*	
SUPPORT	0.011	0.082	0.701	3.323***	
FIRMSIZE	0.235	2.719***	0.223	1.834*	
<i>Model Summary</i>					
R^2	Adj. R^2	Sig.	R^2	Adj. R^2	Sig.
0.287	0.258	0.000***	0.451	0.395	0.000***
$N = 105$			$N = 44$		

Table IX.
Regression results
for the female/male
subsets

Notes: ***Significant at the 0.01 level, $p < 0.01$; **significant at the 0.05 level, $p < 0.05$; *significant at the 0.10 level, $p < 0.10$

young entry-level professionals in CPA firms, and by showing the effects that such learning has on their levels of job satisfaction.

From the results of clustering the questionnaire responses, we conclude that the three main dimensions of organizational learning for new entry-level professionals in CPA firms are workplace exchange, training and monitoring and informational system support. Our empirical tests on the trainee auditors' levels of job satisfaction lead to a conclusion that two of these three dimensions, namely, workplace exchange and supportive informational systems, are significantly associated with job satisfaction. More effective workplace interactions and stronger informational support lead to a higher degree of job satisfaction for young entry-level audit professionals. The regression results on the break-down of the sample by gender prove that female and male trainee auditors prefer different approaches to organizational learning. The female trainees are more satisfied with their firm's workplace interactions and their supervisory and mentor-protégé relationships, whereas the males are more satisfied with the workplace interactions and supportive informational systems.

We also find that trainee auditors working for bigger CPA firms enjoy greater job satisfaction than those working for smaller CPA firms, and that male trainee auditors are more easily satisfied with audit jobs than female auditors.

Limitations and implications

This study is limited by its reliance on a sample the trainee auditors, who are used to proxy for entry-level professionals in CPA firms for researching the effects of organizational learning on the job satisfaction of entry-level audit professionals. Although this sampling method is a convenient means of investigating new entrants to the public accounting profession (Sweeney and Boyle, 2005), more direct and convincing evidence would be provided if junior auditors in CPA firms could be included. Additionally, organizational learning in CPA firms is not limited to new entrants and trainee auditors. As CPA firms are sophisticated knowledge-intensive learning organizations, more extensive tests are suggested for future research on knowledge management among different levels of practitioners in CPA firms, and for research on the effects of organizational learning on the behaviour of more senior employees. Also, future studies can focus on organizational learning in the firm-wide context, in which CPA offices and their employees are considered as only part of the larger process of organizational learning (Örtenblad, 2001).

Our findings have both academic and practical implications. This study extends the topic of organizational learning into the audit literature by identifying the three major dimensions of organizational learning for new entry-level professionals in CPA firms. Based on our empirical tests on trainee auditors, we argue that mentor-protégé relationships have opposite effects on the job satisfaction of female and male trainees. This finding introduces a gender factor into studies on the role of mentor-protégé relationships in organizational learning. In terms of practical implications, our findings can help to improve the management practices and human resource policies in CPA firms. These firms should focus on the establishment of effective organizational learning cultures by providing friendly and cooperative workplace interactions, helpful supervisory and mentoring relationships and supportive information systems. In general, effective organizational learning channels, including mentor-protégé relationships, are crucial in educating, motivating and retaining young talented people.

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Further reading

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