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Examination of the actual turnover decisions of female auditors in public accounting

Evidence from Hong Kong

Philip Law

*Department of Accounting, Faculty of Business Administration,
University of Macau, Taipa, Macau*

Abstract

Purpose – The inability of public accounting practices to retain female auditors is of concern to the profession. The purpose of this paper is to examine the factors associated with the actual turnover decisions made by female auditors in the public accounting profession.

Design/methodology/approach – Multinomial logistic regression is used to analyze survey data from 247 female auditors who were formerly employed by public accounting firms in Hong Kong. About 20 semi-structured interviews are conducted to supplement the findings.

Findings – The results reveal that role conflict has the highest explanatory power among the independent variables. Social comparison with peers, stress and age are also influential factors in the turnover decisions made by female auditors in the public accounting field. These results support social comparison theory, which asserts that individuals are driven to evaluate their abilities and opinions through social comparison with others. A particularly interesting finding is that neither physical appearance nor gender discrimination is an influential factor, which contradicts the findings of research carried out in the USA and Japan.

Originality/value – According to human capital theory, the departure of female auditors from the public accounting profession represents a significant loss in human capital. Public accounting firms should thus take immediate measures to retain this valuable source of human capital and achieve the goal of a gender-diverse workplace.

Keywords Auditors, Public sector accounting, Women workers, Hong Kong

Paper type Research paper

Introduction

In the past ten years, the number of women entering the public accounting profession has increased significantly (HKICPA, 2008). However, the literature reports a high level of turnover among female auditors in public accounting practices (Morley *et al.*, 2002; Herbohn, 2005; Pasewark and Viator, 2006; Whiting, 2008). This inability to retain female auditors is of concern to the profession (Herbohn, 2005; Anderson-Gough *et al.*, 2005; Whiting, 2008; Komori, 2008). Although prior studies have examined the factors that influence the turnover intentions of female auditors (Dalton *et al.*, 1997; Morley *et al.*, 2002; Herbohn, 2005; Pasewark and Viator, 2006), the lack of a theoretical basis and other limitations in these studies make it difficult to draw inferences. In addition, some researchers have adopted a qualitative approach to the issue (Anderson-Gough *et al.*, 2005; Whiting, 2008; Komori, 2008), and it is known that purely qualitative research is open to criticisms of subjectivity and bias (Cavana *et al.*, 2001). Most of the literature in this area focuses on turnover intentions alone (Fogarty, 2000;



Kalbers and Cenker, 2007; Hall and Smith, 2009), although other research indicates that such intentions may not adequately capture actual turnover behavior (Tett and Meyer, 1993). Hence, the purpose of this study is to examine the factors associated with the actual turnover decisions of female auditors in public accounting firms in Hong Kong.

The study, which draws on social comparison theory for analysis of its results, differs significantly from previous studies by employing both quantitative and qualitative research methods. Six independent variables developed principally through a review of the existing literature were considered in survey questionnaires collected from 247 female auditors who had formerly been employed by public accounting firms in Hong Kong (including those who had recently resigned, but were still serving out their notice period in the accounting firm). About 20 semi-structured interviews with former female auditors were then conducted to confirm the survey findings. The three dependent variables are:

- (1) commercial sector;
- (2) government/related sector; and
- (3) public accounting sector.

Multinomial logistic regression is employed, the first time such an approach has been used in this area of research.

The inability of public accounting practices to retain female auditors is of significant concern to the auditing profession. First, staff turnover, which involves exit and recruitment interviews, additional training for new staff, and a reduction in audit quality due to the loss of expertise (Hill *et al.*, 1994; Sanusi and Iskandar, 2007), is costly for firms. Second, the inability to retain a sufficient number of women hinders firms' goals of creating a gender-diverse workplace (Dalton *et al.*, 1997). Third, staff turnover has an impact on clients, possibly resulting in reduced client goodwill and trust and poorer auditing quality (Waller, 1985). One client commented:

Due to the sudden departure of the female audit manager, I [the CFO] had to repeat my explanation of our firm's internal controls and operating procedures to the new audit manager. This was a waste of both my time and theirs.

Finally, the departure of female auditors represents a significant loss of human capital to the public accounting profession. Studies show that female auditors who leave auditing firms are significantly less likely than their male counterparts to be re-employed in public accounting (Dalton *et al.*, 1997; Komori, 2008). Human capital theory (Becker, 1993) posits that education, vocational training, experience and skills are all forms of human capital, as they boost earnings and allow individuals to enjoy higher returns on their efforts. Female auditors possess all of these human capital attributes, and thus their departure due to role conflicts or family issues represents a great loss in human capital to the public accounting profession (Collins, 1993; Pasewark and Viator, 2006; Whiting, 2008; Komori, 2008). It is hoped that this paper will contribute new insights to the auditing literature and lead to policy change and implementation.

Literature review and hypothesis development

A thorough review of the literature led to the adoption of six variables, namely, role conflict; social comparison with peers; stress; physical appearance; gender discrimination; and age, which are discussed in detail below.

Role conflict

Many studies have reported conflict between work and home life to be a factor that triggers female auditors in public accounting to leave the profession in pursuit of employment in other sectors (Trapp *et al.*, 1989; Collins, 1993; Reed *et al.*, 1994; Dalton *et al.*, 1997; O' Neill *et al.*, 1998; Morley *et al.*, 2002; Herbohn, 2005; Pasewark and Viator, 2006; Whiting, 2008; Komori, 2008). Society traditionally perceives women as the primary family caregivers. Research indicates that women thus experience greater inter-role conflict than men (Reed *et al.*, 1994; Herbohn, 2005; Pasewark and Viator, 2006; Whiting, 2008; Komori, 2008), particularly after the birth of their first child. The associated cultural and work pressures are significant. Female auditors are expected not only to sustain their careers but also to nurture their families. When these women are unable to find a balance between their public accounting and familial roles, they are likely to depart from public accounting and take up a non-public accounting job in the industry or government sectors (Collins, 1993; Reed *et al.*, 1994; Herbohn, 2005; Whiting, 2008; Komori, 2008). Hence, the following hypothesis is proposed:

- H1. Role conflict is associated with the actual turnover decisions made by female auditors in the public accounting profession.

Social comparison with peers

Social comparison theory was initially proposed by social psychologist Leon Festinger in 1954. It holds that individuals are driven to evaluate their opinions and abilities on the basis of social comparisons with others. Festinger (1954) made several hypotheses in association with this theory. First, as noted, he stated that human beings have a drive to evaluate themselves by examining their own opinions and abilities in comparison with those of others. In addition, he posited that the tendency to compare oneself with another individual decreases as the difference between that individual's opinions and/or abilities and one's own become more divergent. Finally, Festinger (1954) hypothesized that there is an upward drive toward the attainment of greater abilities, and upward social comparison occurs when individuals compare themselves with others deemed socially superior in some way. Social comparison theory has been applied in the behavioral sciences, psychology, and management fields. For example, researchers have found support for the theory in studies demonstrating that female college students and adolescents compare their physical attractiveness with that of the models in advertisements (Martin and Kennedy, 1993; Richins, 1991). Likewise, individuals have been shown to compare themselves with others doing well in their own field (Gotwals and Wayment, 2002). Such comparisons may result in changes to one's self esteem and provide motivation for self-improvement (Martin and Gentry, 1997; Krayer *et al.*, 2008). Such motivation is particularly apparent among people who respond to upward social comparisons (i.e. comparisons with those deemed superior in some way) (Argo *et al.*, 2006). It is further posited that upward social comparisons may have negative self-evaluative consequences when an individual is outperformed by someone who is professionally or psychologically close (Pelham and Wachsmuth, 1995). The public accounting profession is highly competitive, with auditors facing extreme work pressure that manifests itself in long working hours and extensive travel commitments (Herbohn, 2005). Dissatisfaction with aspects of the work environment, job nature and/or pay in public accounting firms may motivate women to leave the profession in pursuit of other types of employment. Social comparison theory suggests

that they may be motivated to evaluate themselves in comparison with their peers who work in industry or government (Pelham and Wachsmuth, 1995; Martin and Gentry, 1997; Gotwals and Wayment, 2002; Argo *et al.*, 2006), as the work pressures and role conflict associated with these sectors are less demanding than those in the public accounting sector (Reed *et al.*, 1994; Herbohn, 2005; Komori, 2008). Academic research on the psychological impact of leaving public accounting for alternative positions in other sectors, particularly for female auditors, however, is virtually absent from the accounting or auditing literature. Hence, the following hypothesis is proposed:

- H2.* Social comparison with peers is associated with the actual turnover decisions of female auditors in public accounting.

Stress

Research demonstrates that job-related tensions or stress are associated with the turnover of female auditors in public accounting (Collins and Killough, 1992; Collins, 1993; Sweeney and Summers, 2002). Collins (1993), for example, found that female auditors experience more stress than their male counterparts, and that this higher degree of stress is associated with their higher levels of departure from the public accounting profession. A US study found the additional workload burden in public accounting firms during the busy season to result in stress among the sample of public accountants investigated (Sweeney and Summers, 2002). In view of the importance of this variable, which has received little attention in the recent literature, the following hypothesis is proposed:

- H3.* Stress is associated with the actual turnover decisions of female auditors in public accounting firms.

Physical appearance

Researchers have reported physical attractiveness to play a role in socialization, education, personnel selection and criminal justice (Chia *et al.*, 1998; Perlini *et al.*, 1999; Beckham *et al.*, 2007). The effect of physical appearance on differential treatment has been a frequent subject of psychological research (Feingold, 1992; Beckham *et al.*, 2007; Jonason, 2009). However, empirical studies of its impact on employee turnover, particularly among female auditors, are rare. An exception is research conducted in the USA (Anderson *et al.*, 1994) which found that less attractive female auditors are generally perceived as less likely to succeed in public accounting. Feingold (1992) also reported that attractive people are viewed by others as possessing more positive personal characteristics than unattractive people. In the context of job performance, attractive and well-dressed workers tend to be viewed as more competent, which may have an effect on career success (Rosch, 1988; Riordan, 1989). In light of these findings, and given that public accounting firms emphasize a professional image, the following hypothesis is proposed:

- H4.* The physical appearance of female auditors in the public accounting arena is associated with their actual turnover decisions.

Gender discrimination

Previous studies have found gender discrimination to be an important factor affecting the turnover of female auditors in public accounting (Lehman, 1992; Reed *et al.*, 1994; Komori, 2008). Although Hong Kong (like many western countries) has an equal

opportunities ordinance, such discrimination remains societally ingrained to some extent (Komori, 2008). Research indicates that many clients do not wish to be audited by a woman (Anderson-Gough *et al.*, 2005) and that men often find it unacceptable to be supervised by a woman (Lehman, 1992; Komori, 2008). In Japan, the range of clients assigned to female auditors is limited (Komori, 2008). Furthermore, out-of-office assignments and inventory jobs are considered to require individuals to work “at high pressure and under living conditions not suitable for what might be termed post graduate co-education” (Lehman, 1992, p. 270). For example, remote business trips and inventory work are often not assigned to female auditors because the work is considered to be too “intense” and “risky” for women (Lehman, 1992; Komori, 2008). Komori’s (2008) study carried out in Japan indicates that women there suffer from gender discriminative practices that are rooted in societal expectations that they play the role of wife and mother. Women are often treated differently at work because their male colleagues consider them to require particular care. In addition, some public accounting firms treat their female employees as “temporary employees” (Lehman, 1992) who will probably leave the profession upon marriage or the birth of a child (Reed *et al.*, 1994; Whiting, 2008; Komori, 2008). UK research identified a gendered hierarchy in Big 4 firms (Anderson-Gough *et al.*, 2005), with a lack of women at the managerial and, particularly, partner levels. In view of the importance of this variable, the following hypothesis is proposed:

- H5. Gender discrimination against female auditors is associated with their actual turnover decisions in public accounting firms.

Age

The prior literature indicates that senior female members of the public accounting profession exhibit greater turnover intention than their male counterparts (Rasch and Harrell, 1990; Dalton *et al.*, 1997). Women of mid-career age have been identified as more dissatisfied with the Big 4 firms and more likely to move to smaller accounting firms or to the commercial sector (Kelsall and Leung, 1995; Dalton *et al.*, 1997). Dalton *et al.* (1997) also found that female auditors of this age who left the employ of a public accounting firm were significantly less likely to be re-employed in another public accounting firm relative to their male counterparts. A French study (Dambrin and Lambert, 2008) identified a scarcity of mid-career-aged women in the upper management levels of public accounting firms due to the work-life balance issue. Hence, the age factor is investigated via the following hypothesis:

- H6. Age is associated with the actual turnover decisions made by female auditors in the public accounting profession.

Research design

This study employed both quantitative and qualitative approaches to examine the aforementioned issues. First, a literature review was conducted to identify the variables subsequently included in the survey questionnaire (Hoque and Hopper, 1994). Questionnaires were sent to 400 former female auditors who were randomly selected from a publicly accessible Certified Public Accountant (CPA) directory in Hong Kong (Tsui, 1996; Umar and Anandarajan, 2004) without matching their names with their organizations. All of the respondents had previously been employed by a public

accounting firm in Hong Kong (or had recently resigned from such a firm but were currently serving out their notice period). The samples were identified by phoning those selected and enquiring whether they were female auditors who had been formerly employed by (or recently resigned from) a public accounting firm in Hong Kong and would agree to participate in the survey. Dijk (2000) suggested that the survey response rate can be improved by first contacting potential respondents by telephone to see whether they are willing to participate. Accordingly, questionnaires, an information sheet explaining the research and prepaid, pre-addressed envelopes were sent only to women who had agreed by telephone to participate. Studies carried out in Australia and The Netherlands in which respondents were contacted before questionnaires were sent out reported response rates of 76 and 80 percent, respectively, (Roberts, 1999; Dijk, 2000), whereas the response rate in the current study was 62 percent (247 out of 400 questionnaires). Respondents were guaranteed anonymity, and all of the questionnaires were destroyed after the survey was finished. The questionnaires comprised two major sections. The first section concerned the six main independent variables considered to influence female auditor turnover and the dependent variable of employment sector: 0 = "commercial sector," 1 = "government/related sector," and 2 = "public accounting sector." The second section collected demographic information (see Appendix, Figure A1).

Role conflict was measured by the five-item inter-role conflict scale developed by Kopelman *et al.* (1983) and modified for this study, with a Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The items were averaged to create a single measure of the construct (Cronbach's alpha = 0.88). Social comparison with peers was measured by the six-item social comparison scale developed by Gotwals and Wayment (2002) and White *et al.* (2006) and modified for this study, with a Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Again, the items were averaged to create a single measure of the construct (Cronbach's alpha = 0.91). Stress was measured by the five-item job-induced tension scale developed by House and Rizzo (1972) and modified for this study, with the same Likert scale as that used for the two previous measures and the items averaged to create a single measure of the construct (Cronbach's alpha = 0.89). The physical appearance variable was measured with a Likert scale ranging from 1 ("very unattractive") to 5 ("very attractive"), and gender discrimination by a three-item question on a Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The items of the latter were averaged to create a single measure of the construct (Cronbach's alpha = 0.93). Finally, age was based on a category scale ranging from 1 (" < 25 years old") to 5 ("over 40"). As the results of the pre-tests were found to be satisfactory, question ambiguity was not a concern (Cavana *et al.*, 2001).

The qualitative stage of the study included semi-structured interviews with 20 female auditors who had either been formerly employed by a public accounting firm or had recently resigned from such a firm (and were working out their notice period). The sample was identified via phone calls using the same procedure as that used for the survey. The interviews were conducted in the meeting room of a local CPA firm after office hours. It was thought that this informal environment would encourage the interviewees to express themselves more freely. Each interview began with an open question designed to elicit the factors that influence female auditors' departure from public accounting firms and the difficulties encountered in this profession before moving on to prepared questions covering such issues as:

- role conflict;
- stress;
- peer comparison; and
- age (Cavana *et al.*, 2001).

Detailed notes were taken during the interviews, which were not tape-recorded and later analyzed to identify key patterns and major themes (Cavana *et al.*, 2001). Content analysis was then employed to identify and categorize these patterns and themes (Patton, 1990). The purpose of these semi-structured interviews was to help to confirm the credibility of the survey-stage data analysis.

Data analysis

A non-response bias test in which late respondents were used as proxies for non-respondents (Oppenheim, 1992) was performed, but no significant differences were found.

Multinomial logistic regression was employed to analyze the relationships among the dependent and independent variables, as the former is a non-metric variable (consisting of three employment sector categories). This is a sophisticated method of analysis that is able to compare multiple groups through a combination of binary logistic regressions performed at the same time. The multiple groups in this study comprised female auditors working in the commercial; government/related; or public accounting sectors.

Group comparisons are equivalent to comparisons using a dummy-coded dependent variable, with the group obtaining the highest numeric score used as the reference group. The reference group used in the multinomial logistic regression here was the public accounting sector, as it has a categorical value of "2" in the questionnaire.

The logistic regression function, although nonlinear itself, contains a term, Z , that is a linear combination of the independent variables:

$$\begin{aligned} \text{EMPLOYMENT SECTORS } (Z) = & b_0 + b_1\text{ROLCONFL} + b_2\text{SOCOMPAR} \\ & + b_3\text{STRESS} + b_4\text{PHYAPPEA} \\ & + b_5\text{GENDISC} + b_6\text{AGE} \end{aligned} \quad (1)$$

The explanatory variables in this logit equation are as follows:

EMPLOYMENT SECTORS:

- | | |
|---|---------------------------|
| 0 | COMMERCIAL SECTOR |
| 1 | GOVERNMENT/RELATED SECTOR |
| 2 | PUBLIC ACCOUNTING SECTOR |

- | | |
|----------|---------------------------------------|
| ROLCONFL | Role conflict |
| SOCOMPAR | Social comparison with peers |
| STRESS | Stress experienced by female auditors |
| PHYAPPEA | Physical appearance |
| GENDISC | Gender discrimination |
| AGE | Age |

The logistic regression function is as follows:

$$p = \frac{\exp(Z)}{1 + \exp(Z)} \quad (2)$$

where p is the probability of working in the commercial or government sectors, and Z is the function defined in equation (1). The value under the odds ratio in Table I is the predicted change in odds for a unit increase in one independent variable, holding the other variables constant. The descriptive statistics are presented in Table II.

Multinomial logistic regression makes no normality, linearity, or homogeneity of variance assumptions for the independent variables. However, multicollinearity can affect the parameters of the regression model. Hence, it is essential that multicollinearity be tested for in such regressions. Field (2005) stated that a tolerance value < 0.1 and a variance inflation factor (VIF) value > 10 are causes for concern. Table III shows that the tolerance values for all of the predictor variables were > 0.1 and all of the VIF values

Employment sector ^a	B	SE	Wald	Sig.	Odds ratio	95% confidence interval for odds ratio	
						Lower bound	Upper bound
<i>Commercial sector</i>							
Intercept	-15.777	3.799	17.249	0.000			
ROLCONFL	2.123	0.628	11.431	0.001	8.354	2.440	28.597
SOCOMPAR	1.679	0.523	10.305	0.001	5.359	1.923	14.936
STRESS	1.094	0.413	7.002	0.008	2.985	1.328	6.710
GENDISC	-0.174	0.395	0.193	0.661	0.841	0.387	1.824
PHYAPPEA	-0.257	0.383	0.450	0.503	0.774	0.365	1.638
AGE	0.971	0.417	5.426	0.020	2.642	1.167	5.983
<i>Government/related sector</i>							
Intercept	-19.644	4.092	23.048	0.000			
ROLCONFL	1.839	0.629	8.536	0.003	6.288	1.832	21.588
SOCOMPAR	1.706	0.531	10.316	0.001	5.508	1.945	15.603
STRESS	1.590	0.462	11.862	0.001	4.904	1.984	12.120
GENDISC	0.142	0.411	0.120	0.729	1.153	0.516	2.577
PHYAPPEA	-0.108	0.396	0.074	0.786	0.898	0.413	1.953
AGE	1.153	0.431	7.175	0.007	3.168	1.363	7.367

Notes: ^aThe reference category is the public accounting sector; the logistic equation is: EMPLOYMENT SECTORS (Z) = $b_0 + b_1$ ROLCONFL + b_2 SOCOMPAR + b_3 STRESS + b_4 GENDISC + b_5 PHYAPPEA + b_6 AGE

Table I.
Multinomial logistic regression

	<i>n</i>	Minimum	Maximum	Mean	SD
Stress	247	1.00	5.00	3.3279	1.58555
Role conflict	247	1.00	5.00	3.1984	1.28354
Age	247	1.00	5.00	3.2510	1.54662
Physical appearance	247	1.00	5.00	3.4291	1.21727
Social comparison with peers	247	1.00	5.00	3.0567	1.67381
Gender discrimination	247	1.00	5.00	3.6032	1.41869
Career field	247	0.00	2.00	1.0202	0.85278

Table II.
Descriptive statistics

Table III.
Collinearity statistics

Model	Constant	Collinearity statistics	
		Tolerance	VIF
1	Role conflict	0.553	1.808
	Social comparison with peers	0.459	2.181
	Stress	0.435	2.301
	Gender discrimination	0.916	1.092
	Physical appearance	0.954	1.048
	Age	0.565	1.771

Note: Dependent variable, employment sector

were < 10 (Field, 2005). In addition, all of the standard errors were < 2 (Table I). Hence, it can be concluded that there are no collinearity issues among the variables.

Overall, test of the relationships in the model

The overall test of the relationships among the independent variables and the groups defined by the dependent variable is based on a reduction in the likelihood values of models with and without the independent variables. The significance test for the final model χ^2 , which was 313 (p -value < 0.05) (Table IV), is statistical evidence of a relationship between the dependent variable (employment sector) and the combination of independent variables.

Approximation of the ordinary least squares regression R^2 and pseudo- R^2 (Nagelkerke R^2) values indicated that the model accounted for 81 percent of the variance in the dependent variable (Menard, 2002) (Table V). Such a high percentage suggests that the independent variables are good predictors for the logistic regression model and that the relationships within it are very strong. A classification table (Table VI) demonstrates how well the model predicted group membership and evaluates

Table IV.
Model fitting χ^2

Model	- 2 log likelihood	χ^2	df	Sig.
Intercept only	529.579			
Final	216.537	313.042	12	0.000

Table V.
Pseudo- R^2

Cox and Snell	0.718
Nagelkerke	0.810
McFadden	0.581

Table VI.
Classification table

Observed	Predicted			Percent correct
	Commercial sector	Government/related sector	Public accounting sector	
Commercial sector	60	25	2	69.0
Government/related sector	35	32	1	47.1
Public accounting sector	2	1	89	96.7
Overall percentage	39.3	23.5	37.2	73.3

the accuracy of the model. It can be seen from this table that 73 percent of cases were correctly classified and that the model produced accurate predictions using the six independent variables (Miles and Shevlin, 2001; Menard, 2002).

Results

Analysis showed the findings of the questionnaire survey to corroborate those of the semi-structured interviews. Two tests were employed for the individual independent variables: the likelihood ratio test, which evaluates the overall relationship between an independent variable and the dependent variable, and the Wald test, which evaluates whether an independent variable is statistically significant in differentiating between two sectors in embedded binary logistic comparisons. The likelihood ratio test results (Table VII) reveal that role conflict, social comparison with peers, stress and age are all significant at the 0.05 level, thus indicating that they contribute significantly to explaining the differences among employment sectors. Neither physical appearance nor gender discrimination was significant at the 0.05 level.

Multinomial logistic regression was employed for comparisons among the sectors defined by the dependent variable in Table I. Two such comparisons were made: first the commercial sector and then the government sector was compared with the public accounting sector. As the public accounting sector was the reference group in the analysis, it was coded as "2."

Role conflict was found to be statistically significant ($p < 0.05$) (Table I) in distinguishing both the commercial and government/related sectors from the reference category. A one-unit increase in the role conflict score is associated with 8.4 and 6.3 times the odds of working in the commercial and government/related sectors, respectively, rather than in the public accounting sector. Hence, $H1$ is supported.

Social comparison with peers was also found to be statistically significant ($p < 0.05$) (Table I) in distinguishing the commercial and government/related sectors from the public accounting sector. A one-unit increase in the social comparison score is associated with 5.4 and 5.5 times the odds of working in the commercial and government/related sectors, respectively, rather than in the public accounting sector. Hence, $H2$ is also supported.

Stress was statistically significant ($p < 0.05$) (Table I), such that a one-unit increase in the stress score is associated with 2.9 and 4.9 times the odds of working in the commercial and government/related sectors, respectively, rather than in the public

Effect	- 2 log likelihood of reduced model	χ^2	df	Sig.
Intercept	319.655	103.118	2	0.000
ROLCONFL	238.803	22.266	2	0.000
SOCOMPAR	239.059	22.522	2	0.000
STRESS	235.842	19.305	2	0.000
GENDISC	221.043	4.506	2	0.105
PHYAPPEA	217.911	1.374	2	0.503
AGE	225.700	9.163	2	0.010

Notes: The χ^2 statistic is the difference in the - 2 log likelihoods between the final model and a reduced model; the latter is formed by omitting an effect from the final model; the null hypothesis is that all of the parameters of that effect are 0

Table VII.
Multinomial logistic
regression – likelihood
ratio tests

accounting sector. Hence, *H3* is supported. In contrast, neither physical appearance nor gender discrimination was significant at the 0.05 level. As neither variable contributes significantly to explaining the difference between employment sectors, no support is found for *H4* or *H5*.

Finally, age was found to have a significant influence in distinguishing the commercial and government/related sectors from the public accounting sector. A one-unit increase in the age score is associated with 2.6 and 3.1 times the odds of working in the commercial and government/related sectors, respectively, rather than in the public accounting sector, and hence *H6* is supported.

Qualitative analysis

As previously noted, in the qualitative stage of the research, 20 female auditors who had been formerly employed by, or had recently resigned from, a public accounting firm were randomly selected from a directory of CPAs in Hong Kong and interviewed. Each interview lasted 30 min. A document summary form was used to summarize the content of the interviews (Hoque and Hopper, 1994), from which several major themes emerged (Cavana *et al.*, 2001). The interviewees unanimously agreed that role conflict, stress, social comparison with peers and age were influential factors in their turnover decisions. One female audit manager who had recently resigned made the following comment:

I experienced role conflict between my work and home life. The birth of my first baby put great pressure on me. The competitive environment, long hours and stressful conditions were not conducive to balancing work and family commitments. I will soon change to the commercial sector where my ex-colleagues tell me they have found better working hours, pay and working environment. I have already received an offer.

A former senior auditor (now in the government sector) commented:

Although I am not yet married [aged 26], I had no time for dates with my boyfriend when I was in public accounting. I had to work on weekends as well. I don't want to find myself still unmarried at the age of 30. The work in public accounting was so stressful that I couldn't sleep at night. I worked 70 hours per week on average, which made me feel exhausted. That's why I left public accounting.

Many of the interviewees also raised the issue of age. For example, one senior manager who had recently resigned concluded:

As my age has increased [now aged 38], my aspirations for public accounting have become lower. I know partnership promotion is not for me. I would rather participate in my children's daily development than work here. I find the hours in public accounting to be too long and stressful. I have no spare time to look after my children, whom I consider more important than my career here. I will leave the profession soon, and I have already received an offer from the government sector.

A former audit manager (now working in the commercial sector) said:

As a working mother [aged 36], the role conflict was difficult for me to cope with when I was in public accounting. I had to look after my baby, and also needed to work under high pressure to meet deadlines. As I get older, I prefer to have a normal family life rather than work all day in an audit firm.

Finally, another newly promoted audit manager (who had recently resigned) made the following interesting comment:

As a young audit manager, when I attended meetings in clients' offices with the male partner, people often thought I was his secretary! I recognize that there is a gendered hierarchy in the Big 4 firms in which women are under-represented at the senior manager and partner levels.

To conclude, the results of the semi-structured interviews corroborate the findings of the multinomial logistic regression carried out in the quantitative stage of the study.

Implications and conclusion

The findings of this study have important implications for accounting firms and the public accounting profession and make important contributions to the accounting and auditing literature. Social comparison with peers had the second largest odds ratio in the multinomial logistic regression and is thus the second most important factor in female auditors' decision to leave the public accounting profession. This finding is consistent with social comparison theory, which asserts that individuals are driven to evaluate their abilities and opinions through social comparisons with others, and serves to fill the gap in the accounting and auditing literature on the psychological impact of the decision to leave public accounting, particularly for women. Firms in this sector should thus carefully consider this psychological impact when negotiating with potential resignees. Further research on this psychological factor among male auditors is recommended.

Role conflict had the highest odds ratio and thus the greatest explanatory power among all of the independent variables. This finding suggests that the competitive job nature and highly stressful working conditions of public accounting, as well as the long hours and frequent travel required, are not conducive to balancing work and non-work commitments for female auditors. These women consider role conflict to be the most difficult barrier in coping with a career in this profession. Stress is another psychological factor, and the accumulated effects of stress and role conflict appear to aggravate female auditors' decisions to pursue employment in other sectors. Some may even temporarily leave the profession altogether to look after their children, as was revealed in the semi-structured interviews and in the literature (Whiting, 2008; Komori, 2008). As these women possess all of the attributes of the various inputs of human capital theory (Becker, 1993), that is, education, professional training and vocational qualifications, their departure from the profession represents a significant loss in valuable human capital for public accounting firms. It is thus suggested that these firms find ways of encouraging them to stay. Age is also found to be an influential factor in female auditors' turnover decisions, which could be explicable. As promotions to partnership level are limited in this sector (Anderson-Gough *et al.*, 2005), it is natural that senior female auditors would look for attractive employment opportunities in industry and other sectors. In addition, the interviewees indicated that it is usual practice for auditors to work 70-90 hours per week. As they grow older and move up the career ladder, senior female auditors face greater work commitments and more family responsibilities. Extensive travel commitments (often to remote areas of China) and long working hours undoubtedly create stress and increase these women's desire to leave public accounting. With the birth of one or more children, non-work roles become increasingly important. All of these factors explain the higher turnover rate among older female auditors in the public accounting profession.

Surprisingly, although a professional image is important in public accounting, physical appearance was found to have no effect on turnover in the profession in this study, which contradicts the results of a US study (Anderson *et al.*, 1994). It is possible

that personality dimensions, such as *locus* of control or networking skills, may be of greater importance, and further investigation of these variables is recommended. Also surprising was that gender discrimination was not found to be an influential factor, even though Hong Kong is a Chinese society in which Confucian culture is prominent and female auditors in similar societies, i.e. Japan (Komori, 2008), have been reported to suffer such discrimination. This finding may be attributable to the recently enacted equal opportunities ordinance to a certain extent, although further research is suggested for validation.

In conclusion, female employees are an important asset to any organization. In view of the importance of human capital to the public accounting profession (Becker, 1993), it is strongly suggested that such measures as flexible working arrangements, informal mentoring with partners, and a reduced workload for auditors who are new mothers or whose children are ill, be considered and implemented in public accounting firms without delay. The profession should continue to look for ways to retain talented female auditors to achieve the goal of a gender-diverse workplace.

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Further reading

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(The Appendix follows overleaf.)

Corresponding author

Philip Law can be contacted at: plaw@umac.mo

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Part A

Interrole conflict

When I am/was in public accounting:

1. My work schedule in public accounting often conflicts with my family/personal life

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

2. After my work, I come home too tired to do some of the things I would like to do.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

3. My spouse/boyfriend dislikes how often I am preoccupied with my accounting work while I am home.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

4. On the accounting job I have so much work to do that it takes away from my personal interests.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

5. My job makes it difficult to be the kind of girlfriend/spouse/parent I would like to be.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Stress

When I am/was in public accounting:

1. I feel nervous because of my job.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

2. Problems associated with my work have kept me awake at night.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

3. I have trouble with my digestion due to my work.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Figure A1.
Questionnaire

(continued)

4. I sometime feel weak all over, because of my work.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

5. I hope I have a different job other than public accounting, then my health would probably improve.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Social comparisons with peers

When I am/was in public accounting:

I often compare myself with other peers who seem to be doing very well in the commercial/government sectors on the following five dimensions:

1. Working environment

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

2. Job responsibilities and nature

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

3. Pay and fringe benefits

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

4. Physical attractiveness

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

5. Health and physical fitness

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

6. I often observe my peers who are doing well in my field.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

(continued)

Figure A1.

Gender discrimination

When I am/was in public accounting:

1. I encounter gender discrimination from my colleagues in the accounting firm.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

2. I encounter gender discrimination from the “Partner” in the accounting firm

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

3. I encounter gender discrimination from the clients.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Other questions

4. How would you perceive your physical appearance?

Very unattractive	Unattractive	Average	Attractive	Very attractive
1	2	3	4	5

5. What employment sector are you currently working in?

0 = Commercial sector

1 = Government and related sector

2 = Public accounting sector (the resigned auditors group)

Part B

PERSONAL DATA

Please circle the appropriate answer.

Q1. Your age:

1. Less than 25
2. 26-30
3. 31-35
4. 36-40
5. Over 40

Q2. What professional qualifications do you have?

Please circle as appropriate.

1. CPA (HK)
2. ACCA (UK)
3. CPA (US)/CPA (Aust)
4. CA (UK/Canada)

Figure A1.

End of Questionnaire

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