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ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

Work pressure, job satisfaction and auditor turnover: Evidence from Vietnam

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Abstract: The research aims to determine the factors that explain auditor's decision to leave the audit profession. We employ a mixed approach of both qualitative and quantitative methods. A qualitative study is firstly performed using focus groups with the audit professionals to explore any new determinant(s) of auditor turnover in the Vietnam environment. The focus group indicates a new factor—the pressure of holding the Professional Certificate (CPA certificate)—that likely increases auditor turnover. A quantitative study is then conducted using survey method with a sample of 197 responses from current and former audit staff working for Vietnamese audit firms. We find that the perceptions of the profession, work conditions, work environment, and professional certificate pressure are associated with decisions to leave the audit profession. More importantly, professional certificate pressure—the emergent determinant—is the most influencing factor of auditor turnover. Some practical implications for policy makers to retain experienced and competent audit staff are also proposed.



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Quoc Thuan Pham is a lecturer at the Faculty of Accounting and Audit, University of Economics and Law, VNU HCMC, Vietnam with around 24 year teaching and researching in Accounting and Auditing. His research interest could be found in accounting, audit, policy and finance.

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PUBLIC INTEREST STATEMENT

Auditors are considered an audit firm's invaluable assets. A high rate of auditor turnover has been a critical concern in the public accounting profession. It causes many negative effects on an audit firm's performance and the audit quality. Therefore, an auditor's decision to quit the profession is a topic of particular interest for researchers, practitioners and policy makers. This study aims to understand the impact of work pressure and job satisfaction on auditor turnover. Research results showed that professional certificate pressure is the most influential factor on the decision to quit an auditor's job. We have accordingly proposed some recommendations to reduce the auditor turnover rate.

Subjects: Asian Studies; Environmental Economics; Business, Management and Accounting

Keywords: auditor turnover; perceptions of the profession; work conditions; work environment; professional certificate pressure

1. Introduction

To survive and develop, the company should have a policy to maintain and develop a team of competent employees (Pradana & Salehudin, 2015). The audit profession is a special one because the audit quality depends critically on the audit team's quality. Therefore, the most valuable asset in audit firms is the auditors. The results of many previous studies show that the auditing profession has high employee turnover rates (Chi et al., 2013). The literature also indicates that the majority of students, after graduating, working as an audit assistant usually leave the profession within three years (Hiltebeitel & Leaby, 2001). High auditor turnover rates not only negatively affect the performance of auditing firms but also affect their relationship with clients (Doll, 1983). The research of Lavelle and Herda (2012) showed that high departure rates led to high personnel costs, which could reduce professionalism and affect audit quality (Chi et al., 2013; Hall & Smith, 2009).

Considering the impact of work pressure on employee turnover is an area of interest in the field of human resource management. The studies of Mitchell et al. (2000), Yang et al. (2017), and Reina et al. (2018) showed a positive impact of work pressure on employee turnover. Reina et al. (2018) indicated that employee resignation decisions differ significantly depending on the how managers created the work environment. Specifically, the managers who focus on putting pressure instead of inspiring their employees are less likely to retain employees. Yang et al. (2017) suggested that there were many factors affecting the turnover intention, of which work pressure is the most influencing.

Many studies in the public accounting industry have explored the factors affecting the dismissal of audit assistants (Chi et al., 2013; Furnham et al., 2009; Gertsson et al., 2017). Recent research conducted by Gertsson et al. (2017) has shown that the factors related to job satisfaction affected the auditor decisions to leave the audit job, including the perception of the profession, work conditions and work environment. Although investigating the determinants of auditor turnover has attracted much attention in the public accounting field, the findings are limited and mainly related to job satisfaction.

Recently, more and more research in the field of auditing has been directed toward understanding the relationship between work pressure and auditor turnover. Amiruddin (2019) showed that time pressure has a positive effect on the turnover intention of auditors in audit firms in Indonesia while Tjan et al. (2019) based on the positive impact of task complexity on auditor turnover, concluded that a person without direction and perseverance might never stick with a career for a long time when faced with work pressure. Knechel et al. (2021) stated that high audit quality requirements from audit firms would increase professional pressure on their employees and a low-quality auditor may decide to give up the audit profession to find another profession for their career. Although previous studies have examined work pressure in many aspects, such as time pressure, task complexity or high audit-quality requirements, there is, however, no research investigating work pressure related to professional certificate (CPA). In fact, in addition to the auditors' work pressures, which have been well studied, such as the pressure to compulsorily update knowledge, the pressure to complete the audit reports in time, and the pressure to maintain the audit quality to the company's reputation, the additional requirement to obtain professional certificate also puts much pressure on the auditors. Most of the audit assistants, after a period of working without obtaining a professional certificate, tend to decide to leave the audit profession and take the position of chief accountant, finance manager, risk manager, or internal auditor in companies with better working conditions and higher compensation. In Vietnam, previous studies only investigated the impact of career development policy, teamwork,

salary and material rewards, and work conditions on auditor turnover (Anh et al., 2020; Anh et al., 2020). Research on the impact of work pressure from professional certificate's exams on auditors' job change has not yet been explored. Therefore, exploring the association of professional certificate pressure and career change of auditors could shed light on the auditor turnover literature.

This study aims to explore auditor turnover determinants related to work pressure. Moreover, we tested the association between the emergent determinant—work pressure—and the existing determinant—job satisfaction—with audit turnover in Vietnamese audit firms. A mixed methods approach was employed in the research. A qualitative method is used to explore determinants related to work pressure. Specifically, focus groups were conducted with the audit professionals, including current audit partners and managers as well as audit assistants who left the audit profession and who are still working for audit firms. A quantitative survey study is then performed to test the relationship between work pressure and job satisfaction with auditor turnover. We employed the Gertsson et al. (2017) model and added the new determinant of work pressure. The survey questionnaires were delivered and collected 205 responses. There were 197 complete responses, of which 99 responses were from current audit assistants and 98 responses from former audit staff in Vietnamese audit firms. The survey period is from August to October 2020. All four determinants, including the perceptions of the profession, work conditions, work environment, and professional certificate pressure, are statistically associated with decisions to leave the audit profession. More importantly, professional certificate pressure—the emergent determinant—is the most influencing factor of auditor turnover and the contribution of this research to the auditor turnover literature.

The remainder of this paper includes a literature review as a basis to the research. Research methodology and methods are next presented to explain how the research has been performed. This section is followed by research model, hypothesis and variable measurement. The final section is conclusion, implications and further research.

2. Literature review

Voluntary turnover refers to an employee's decision to resign his job voluntarily (Pizam & Thornburg, 2000). Tett and Meyer (1993) define voluntary turnover as the conscious and intentional willingness to quit an organization. Research on voluntary turnover in public accounting field is typically conducted in two scenarios: the auditor leaves one audit firm to work for another firm, and the auditor exits the audit profession (Knechel et al., 2021). The study approaches voluntary turnover from the perspective of quitting the audit profession. Gertsson et al. (2017) stated that job satisfaction is a critical factor influencing an employee's decision to leave a job. The key antecedents of job satisfaction that affect the employee turnover are perceptions of the profession, work conditions and work environment. Expectancy theory is a foundational theory of motivation at work. The theory explains how an organization motivates its employees and retains them.

2.1. Expectancy theory

Expectancy theory was originally proposed by (Vroom, 1964). The theory explains why people are motivated to work hard to get things done. (Vroom, 1964) suggested that people's behavior and work motivation are determined by people's perception of their expectations in the future. Employees will work hard if they know that doing it will lead to good results or high rewards. For example, a person wants to get promoted and they are told that if they work hard, they will get achievements at work and that achievement will lead to promotion, then that perception will motivate them to work hard to achieve their expectation.

Expectancy theory is considered an important foundation for the research on turnover intention (Ngo-Henha, 2018). Based on a review of existing research on turnover, Ngo-Henha (2018) argues that employees come to work for an organization with expectations and values and if those things are met, they will most likely remain members of the organization. Likewise, negative behaviors such as absenteeism will arise. Rathakrishnan et al. (2016) identified the expectations of employees

including rewards, training, working environment, work conditions and perception of the profession. Management's efforts in assessing and satisfying employees' expectations could be seen as a particular strategy for employee retention. Based on the foundation of expectancy theory, Larkin et al. (1999), Chi et al. (2013) argued that the important factor affecting employee leave and career change was job satisfaction. The key determinants of job satisfaction are work environment, work conditions and perception of the profession (Gertsson et al., 2017). On the basis of analyzing the expectancy theory and the important role of this theory for previous studies on turnover, we believe that the expectation theory is considered as an appropriate foundation for this research.

2.2. The effect of perceptions of the profession on voluntary turnover

Perceptions of the profession in the public accounting is defined as the way auditors think and feel about the audit profession, including status and prestige, sense of meaning, professional expertise and societal benefits (Carcello et al., 1991; Gertsson et al., 2017) and the impact of perceptions of the profession on decisions to leave the profession is of great interest to many researchers in the public accounting field. Employees often choose to work for a company and profession that fit their personality (Ehrhart & Ziegert, 2016). Cable and Judge (1996) suggest that, if there is a difference between the perception of personal values and the reality of the organization, it will lead to the employee's intention to leave the company. Similarly, Abbott (1988) argues that if the public image of the profession differs from the actual image of the workplace, this will lead to the employee's decision to quit. Faulconbridge and Muzio (2008) claim that the profession's public image is likely different from the workplace image, which leads to the frustration of the audit assistants and their decision to leave the audit profession. Carcello et al. (1991) and Phillips and Crain (1996) also point out that some accounting students have unrealistic and misleading expectations of the audit profession. In addition, since the audit profession provides a service that is very important to and often appreciated by the public (Carcello et al., 1991), students often have higher expectations. Therefore, if there is an expectation gap, they often choose to quit their jobs (Broberg, 2013). Similarly, poor perceptions of the profession leading to higher job vacancies in Sweden audit firms was found by Gertsson et al. (2017). Thus, the following hypothesis is proposed:

Hypothesis 1 (H₁): Perceptions of the profession have a negative impact on voluntary turnover.

2.3. The effect of work conditions on voluntary turnover

Work conditions refer to all the circumstances that influence labor in the workplace, including working hours, physical aspects, benefits, organizational responsibilities, workload and training (Ali et al., 2013). According to Maslow's hierarchy of needs (Maslow, 1943), factors of working conditions are basic needs, that is, physiological and safety needs. Audit assistants have physiological needs such as time; they need enough rest time to continue working effectively. As a result, the heavy workload, a large number of working hours, overtime, many business trips or lack of flexibility in workplace can easily lead to stress and work-life imbalance. This, in turn, results in health damage to audit assistants, which is precisely the safety need that Maslow identified. Therefore, if those basic needs are not met, audit assistants decide to leave the position. The relationship between work conditions and the auditor's decision to leave the profession is also a topic of interest in the public accounting literature. Previous studies have measured working conditions through factors such as:

- *Workload*: if audit assistants often feel they have worked too many hours, under time pressure, they will decide to quit (Veena et al., 2016). In addition, burnout has a direct negative impact on job satisfaction and indirectly negative effects on organizational commitment. Both these factors lead to a higher risk of employees leaving their positions (Chong & Monroe, 2015).
- *Overtime*: being a fairly common phenomenon during audit season, Carcello et al. (1991) performed a study comparing the expectations of the graduating accounting students and the audit assistants. Both felt no desire to work overtime. Law (2010) also said that working overtime has an impact on the problem of quitting.

- *Job flexibility and long-distance work*: an audit profession is a profession that requires frequent long trips to perform work at the client's company (Phillips & Crain, 1996). Therefore, it is easy for employees to face many conflicts related to work and home life, depending on the size of the audit firm (Buchheit et al., 2016). Research by Twenge et al. (2010) shows that the younger generations that companies are currently hiring, value work and life balance, and, thus, this is met by creating the possibility of a more flexible work schedule. These flexible schedules have improved employee satisfaction, created employee motivation and engagement with the organization, and reduced the intention to quit.
- *Stress at work and hours of work*: stress is a phenomenon that occurs more commonly in the audit profession than in other professions. The reason for this is because the audit work usually accrues in a certain period of time (audit season). Smith et al. (2017) have shown that stress leads to burnout, reduced job satisfaction and decreased job performance and increases the risk of quitting.
- *Work-life imbalance*: the audit profession requires auditors to often travel far to perform work at the client's company (Phillips & Crain, 1996). Therefore, audit assistants are faced with many conflicts related to work and personal life, which means there is a lack of balance between work and personal life (Buchheit et al., 2016). This is also identified in the study by Gertsson et al. (2017).

Based on the above arguments, the following research hypothesis is suggested:

Hypothesis 2 (H₂): Work conditions negatively influence voluntary turnover.

2.4. The effect of work environment on voluntary turnover

Work environment is most simply defined as the settings, situations, conditions and circumstances in which people work. It includes physical settings (e.g., architecture, equipment), job characteristics (e.g., workload, complexity of work tasks), organizational characteristics (e.g., culture, history) and even aspects of the complementary settings (e.g., local labor market conditions, industry sector, work-personal relationships). It means that the working environment encompasses all of the interrelationships that occur between employees and employers, as well as the physical, human, and organizational surroundings in which employees conduct their work (Briner, 2000). According to Maslow's hierarchy (Maslow, 1943), the factors of the work environment are physiological requirements (diverse and appropriate assignment of jobs, good policies, fair promotion and compensation), social needs (relationships with coworkers), need for self-esteem (recognized by performance assessment efforts, company pride), and need for self-expression (autonomy in work). When these needs are not satisfied, it will lead to dissatisfaction, and will result in an intention to leave or possibly leave. Studying the impact of the work environment and the decision to quit is also of interest in the field of auditing. Previous studies have measured the factors of the work environment through the following factors:

- *Autonomy at work*: this can be a factor affecting job satisfaction of assistants and reducing employee's intention to leave the profession (Strawser et al., 1969). Fogarty and Kalbers (2000) also give similar results, and believe that the high degree of autonomy in work increases the professionalism of auditors. Auditors will, as a result, feel more motivated and satisfied, performing more actively (Bamber & Iyer, 2009).
- *Diversification and suitability for the assigned job*: Carcello et al. (1991) showed that taking on a challenging job improves skills, which is one of the main benefits an audit assistant wants when working at an audit firm. Diversity at work increases employee motivation, reduces layoffs and can be achieved by rotating staff between departments (Garg & Rastogi, 2006).
- *Reasonable policy*: Gammie and Whiting (2013) show that salary, bonus and promotion policy of the organization is an important factor, affecting the decision to quit the job of audit assistant. Employees tend to leave the company in search of a good working environment (Parker & Kohlmeyer, 2005). In addition, the method of performance assessment is always an indispensable part of the working environment, affecting job satisfaction (Pitman et al., 1989).
- *Organizational fairness*: Parker and Kohlmeyer (2005) show that individuals tend to leave their jobs and even go against the company if they perceive inequality in the organization relating to salary,

bonus, or promotion opportunities. A sense of bias will lead to a decision to quit due to low job satisfaction and low organizational commitment.

- *Relationship with colleagues*: if the company creates a good working environment, the relationship between the good employees will reduce the number of layoffs (Herda & Cannon, 2016; Lavelle & Herda, 2012). If the working environment is stressful, the relationship with the co-workers is not good, making the assistant feel the job hard (Benke & Rhode, 1980), which, in the long run, may lead to the choice of giving up the profession (Pitman et al., 1989).
- *Company pride*: being proud of what they do and where they work are factors that have been shown to have a positive effect on employee satisfaction (Knoop, 1994). If auditing firms do not make employees proud of the company they are working for, it is common to leave the company at the first opportunity (Broberg, 2013; Kosmala & Herrbach, 2006; Lee, 2002; Otley & Pierce, 1996).

Based on the above arguments, the following hypothesis is proposed:

Hypothesis 3 (H₃): Work environment is negatively associated with voluntary turnover.

3. Methodology

3.1. Research method

The research employed a mixed methods approach with qualitative first and quantitative later. A qualitative study of focus group is used to explore determinant(s) related to work pressure. This focus group method also helps to build a measurement scale for the emergent determinant of work pressure. We made two focus groups with nine audit professionals, namely the audit partners, the former and current audit assistants in the audit firms including both Big4 and non-Big4 in Ho Chi Minh City, Vietnam.

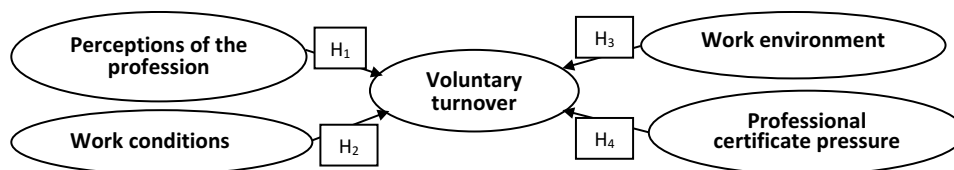
The participants of two focus groups stated that the audit profession is a profession with too much pressure, in which the requirement to obtain professional certificate to become a certified public accountant is considered the most severe pressure for audit assistants. Statistical data show that no more than 10% of the candidates obtain a Vietnamese CPA certificate (Hàng, 2019). There are many audit assistants who think that they are not able to pass the Vietnam CPA exam organized annually by the Ministry of Finance of Vietnam. In this case, they often decide to leave the audit profession and find another suitable job. In reality, audit assistants with three-year experience or more are considered top candidates for accounting and finance manager positions in businesses. With experience, skill and knowledge accumulated when conducting audit engagements, especially for the audit assistants came from the Big4, they will have plenty of opportunity to take a senior position in charge of accounting, finance, internal control, and internal audit with a higher salary and better work conditions. In other words, professional certificate pressure likely creates work pressure and is an important determinant of auditor career change. Results of focus groups allowed us to add the factor of professional certificate pressure; therefore, we suggest the following research hypothesis:

Hypothesis 4 (H₄): Professional certificate pressure is positively associated with voluntary turnover.

The research model and corresponding hypotheses are shown in [Figure 1](#).

A quantitative survey study is then performed to test the relationship between work pressure and job satisfaction with auditor turnover. We employed the Gertsson et al. (2017) model and added the new determinant of work pressure. Gertsson et al. (2017) have identified three determinants of job satisfaction and auditor turnover: perceptions of the profession, work conditions and work environment. Using a survey method, questionnaires were sent to the former and current audit assistants in audit firms including both Big4 and non-Big4 at Ho Chi Minh City. As many as 205 responses were collected, but there were only 197 complete ones, of which 99 responses were

Figure 1. Research model.



from current audit assistants (50.3%) and 98 responses from former audit staff in Vietnamese audit firms (49.7%). As many as 85 respondents (43.1%) used to work or are working for Big4, and 112 respondents (56.9%) for non-Big4. The survey period was from August to October 2020. Survey data were analyzed using binary logistic regression on SPSS 20 software.

3.2. Variable measurement

Perceptions of the profession is a first order construct which is measured using four questionnaire items taken from Gertsson et al. (2017).

Work conditions is a first order construct which is measured using seven items taken from Gertsson et al. (2017).

Work environment is a first order construct of eleven items taken from Gertsson et al. (2017).

Professional certificate pressure is a first order construct which is measured using four items built on the focus groups' findings (Appendix 1).

All items were measured on a 5-point Likert scale, with 1 being strongly disagree and 5 being strongly agree.

Voluntary turnover is a dummy variable that takes the value 0 if the respondent is still working as an audit assistant and 1 if the respondent has left the audit profession.

4. Research results

4.1. Focus group

When being asked what is the most pressure to leave the audit profession, most participants of the two focus groups (two partners among three of the first focus group and five assistants among six of the second focus group) agreed that the pressure to hold a professional certification was the reason why the audit assistant left the profession or considered to leave. In Vietnam, the Law on Independent Audit stipulates that auditors must obtain a Vietnamese CPA Certificate granted by the Ministry of Finance to be able to sign the audit report. Even for auditors holding a foreign professional certificate like CPA Australia, ACCA, or ICAEW, it is necessary to pass Vietnamese professional certification tests in Vietnamese. Stemming from this regulation, the opinions of partners from group discussions show that auditing firms often provide a salary framework for staff and manager levels. The auditors without professional certification will always be in the position of assistant auditors and their salary increase, reward, remuneration and career advancement in the auditing firm will almost cease once they have reached the threshold. The last staff. Therefore, in this case, the audit assistants will choose to give up the audit profession because of the inability to obtain professional certification.

In addition, accounting and auditing training institutions in Vietnam currently have not really focused on career development orientation for graduates. Therefore, the opinion of experts who are former audit assistants shows that they have decided to give up the audit profession because they do not have adequate preparation of knowledge, skills as well as confidence to be able to do so. Pass the exam of the professional certificate.

Regarding the opinion of the audit assistants, professional certification requirements have two sides. On the one hand, this requirement motivates them to work hard to get professional certification and get promotion in the audit profession. On the other hand, if they are not qualified, this requirement will create a pressure and this is considered the main reason motivating audit assistants to find another job that does not require strict professional certifications. Such as accountants, financial analysts, internal auditors.

In short, the pressure of obtaining a professional certification is likely a factor influencing the auditor turnover in Vietnamese context. We added this factor in the regression model to test the relationship between work pressure, job satisfaction and auditor turnover.

4.2. Regression analysis

4.2.1. Descriptive statistics

Out of 197 respondents, 48.2% were male and 51.8% were female; 58.9% of men are current audit assistants, and 41.1% are former assistants who decided to leave the audit profession. Similarly, 42.2% of women are current audit assistants, and 57.8% are former assistants. On average, the respondents have worked in audit firms for 50.3 months with current and former assistants 59.6 months and 40.7 months, respectively.

4.2.2. Scale reliability

Cronbach's α is commonly used to evaluate the reliability of the scale (Tho, 2011). If a variable has a corrected item-total correlation from 0.3 or more, then that variable and a satisfactory scale are considered acceptable in terms of reliability if Cronbach's α is from 0.6 to 0.95 (Tho, 2011).

The model of this study consists of four independent variables and one dependent variable, (voluntary turnover), which is dummy variable. Therefore, we conducted a scale reliability test for each independent variable (Appendix 2). For the first test, we removed the WCON7 item (under the work conditions variable) because the corrected item-total correlation value was too low (equal to 0.125, less than 0.3). In addition, we also removed the WENV5 and WENV9 items to increase the WCON variable's Cronbach's α . We did the same in removing CERP4 to get a more reliable result for the CERP variable. The next test results (Table 1) show that Cronbach's α of the independent variables has high values (from 0.763 to 0.854) and the Corrected Item-Total Correlation items are all high (0.444–0.745 is greater than 0.3). It means that the scale has good reliability and the observed variables are satisfactory.

4.2.3. EFA analysis

The model of this study includes four independent variable factors that influence the voluntary turnover. Total variance explained factor analysis results show that there are four factors extracted at Eigenvalues of 1.542 with the total variance extracted from TVE as 55.378% (Appendix 3). Rotated Component Matrix analysis results (Appendix 4) show that all the factor loading of the measured items attained the highest value. Thus, construct validity of the scales is guaranteed.

4.2.4. Binary logistic regression model

Because the dependent variable (voluntary turnover) is the dummy variable model, to test and measure the impact of the four factors of independent variables to the dependent variable, the author uses the binary logistic regression model.

Testing the suitability of the model: The value $-2LL$ is 119.470, which means the regression model is relevant (Table 2).

Test of model significance: The R-squared of the model has value 0.542, which shows that the four independent variables of the model account for 54.2% of the variation of the dependent

Table 1. Analysis results of Cronbach's alpha for the scales—next test (Source: according to actual survey data in 2020)

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Perceptions of the profession (PERP), Alpha = 0.763				
PERP1	12.34	3.540	.486	.748
PERP2	11.92	3.524	.585	.696
PERP3	11.70	3.356	.562	.707
PERP4	11.93	3.301	.621	.674
Work conditions (WCON), Alpha = 0.844				
WCON1	14.17	13.337	.584	.826
WCON2	14.14	12.551	.658	.812
WCON3	14.19	13.296	.627	.818
WCON4	14.21	12.880	.678	.808
WCON5	14.12	13.352	.570	.829
WCON6	14.09	13.124	.628	.818
Work environment (WENV), Alpha = 0.826				
WENV1	28.20	19.754	.561	.805
WENV2	27.38	19.766	.493	.812
WENV3	27.42	20.184	.444	.818
WENV4	27.60	19.353	.523	.809
WENV6	27.53	18.536	.575	.803
WENV7	28.29	18.401	.589	.801
WENV8	27.42	19.439	.548	.806
WENV10	26.94	20.635	.490	.813
WENV11	26.97	19.866	.548	.806
Professional Certificate Pressure (CERP), Alpha = 0.854				
CERP1	7.97	2.525	.735	.786
CERP2	7.94	2.859	.699	.821
CERP3	8.02	2.500	.745	.776

Table 2. Model summary (Source: according to actual survey data 2020)

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
first	119.470 ^a	.542	.722

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

variable, voluntary turnover (Table 2). In other words, the auditors' turnover explained 45.8% by other factors which were not included in the model, such as the auditors' characteristics (e.g., gender, age), and work-life conflict.

Testing the research hypothesis: The Sig. values of the four independent variables (PERP, WCON, WENV, CERP) are lower than 0.05 (Table 3). This allows rejecting hypothesis H₀. In other words, all four factors, including the perception of the profession, work conditions, work environment, and professional certificate pressure, have a statistically significant impact on the voluntary turnover of audit assistants. On the one hand, the impact of the three factors of job satisfaction (including perceptions of the profession, work conditions, and work environment) on the auditor turnover is consistent with

Table 3. Variables in the equation (Source: according to actual survey data 2020)

Variables in the Equation		B	SE	Wald	DF	Sig.	Exp (B)
Step 1 ^a	PERP	-1.573	.502	9.832	First	.002	.208
	WCON	-.736	.357	4.262	First	.039	.479
	WENV	-2.053	.578	12.630	First	.000	.128
	CERP	3.860	.669	33.333	First	.000	47.487
	Constant	.038	3.510	.000	First	.991	1.039

a. Variable (s) entered on step 1: PERP, WCON, WENV, CERP .

the previous research findings (Anh et al., 2020; Gertsson et al., 2017; Law, 2010; Ming Chia, 2003). This result is explained by the expectancy theory. Specifically, when becoming a member of the audit profession, auditors will anticipate and expect the desired outcomes, such as an ideal working environment and conditions, good salary and bonus policy, promotion opportunities, respected jobs, or contribution to society. They are the rewards for auditors' efforts. If the expectations are far away from what they experience, they will decide to leave the profession. On the other hand, the effect of professional certificate pressure on voluntary turnover is a new finding in the literature on work pressure. In fact, the relationship between work pressure and auditor turnover has been well-investigated in recent studies by Tjan et al. (2019), Amiruddin (2019), and Knechel et al. (2021). However, those studies focused on work pressure from meeting deadlines, task complexity, and high audit quality requirements. This study has contributed to diversifying the variables of work pressure in the audit profession by adding the professional certificate pressure.

The direction and degree of impact of factors on voluntary turnover:

Based on the sign of the Standardized Coefficients B (Table 3), we conclude that perceptions of the profession, work conditions, and work environment have negative effects on voluntary turnover, but professional certificate pressure impacts in the same direction to voluntary turnover. The value of B weight (Table 3) shows that professional certificate pressure is the most influencing factor on the assistants' voluntary turnover and work conditions is the weakest factor. More specifically, the higher the auditor's perceptions of the profession, the better the work conditions and work environment, and the higher the auditor's ability to stick with the profession. However, the pressure to obtain a professional certificate actually has the most significant impact on the decision to leave the audit profession.

5. Conclusion, implications and further research

5.1. Conclusion and implications

This research contributes to the auditor turnover literature. We found that perceptions of the profession, work conditions, work environment and professional certificate pressure are associated with the audit assistants' decision to leave the profession. Perceptions of the profession have a strong influence on auditor turnover, which is completely consistent with the research results of Gertsson et al. (2017). To increase career awareness, students need to thoroughly research before choosing a career, with clear goals to avoid unreasonable and unrealistic expectations. Universities need to help students learn more about careers through career-oriented sessions, and through internships so that students have a more correct understanding of their careers. Work conditions are also a factor that has a strong impact on the dismissal behavior of the audit assistant. Our results are also consistent with the study by Gertsson et al. (2017). The cause of this phenomenon is because the workload is too heavy, the assistants have to work overtime, and the work is always stressful. Therefore, audit companies need to take measures to improve work conditions, reduce workload during the audit season, help assistants to balance work and life, and reduce stress at work. The board of directors of the audit firms should have a comprehensive understanding of the influence of working circumstances on the resignation of the

auditor in order to take steps to alleviate these pressures. An audit firm with a strong governance system, including manuals of audit strategies, procedures, and methodologies as well as a good quality control system, will relieve strain on auditors during audit season and, as a result, the auditors' absenteeism will be reduced (Gammie & Whiting, 2013; Law, 2010).

The working environment also influences the audit assistant's decision to stay or leave. Our results are similar to those of Gertsson et al. (2017). If auditors have autonomy in their work, are assigned diversified and appropriate jobs, the company has a good remuneration policy, fair treatment, good relationships with colleagues and they are proud of the company, they will be more attached to the company. Therefore, the audit firm should create a positive work environment with open and clear communication, which, in turn, increases job satisfaction. Moreover, the audit firm should have a competitive compensation policy and a fair reward system. Furthermore, it is essential that the firm provide an environment in which auditors may form positive relationships with their coworkers and their employer, as well as continue to learn. Audit managers should also have channels for detecting unhappiness, dissatisfaction, and stress in an auditors' job so that early remedial steps may be taken to avoid negative outcomes, which, in turn, reduces the firm's revenue and employee satisfaction.

The last but the most important determinant of career change is the pressure to have a professional certificate. Audit assistants are often required to have a CPA certificate in order to be able to practice professionally, get promotions, and raise salaries. However, passing the CPA's exam is not easy; the statistical data show that the pass rate is only about 10%. This is because the number of exam subjects is quite large (seven subjects) and the exam tests are rather difficult. In addition, according to current Vietnamese regulations, audit assistants can only apply to take the CPA exam when they have 48 months of working experience. To take the exam, assistants have to study by themselves or attend exam preparation classes but have little time due to busy work schedules. Therefore, obtaining professional qualifications is really a great pressure for auditors. The assistants who do not think they will pass the CPA exam will decide to leave the audit profession. To reduce the professional certificate pressure, we recommend the following key solutions. First, training programs in accounting and auditing majors at universities should focus on equipping students with the necessary knowledge and skills toward the goal of obtaining professional certificates in the future. Next, the CPA exam tests should be oriented toward the theories and practices necessary for the audit work, avoiding challenging questions. It should be possible for recent graduates to take the CPA exam without a 48-month working experience. Moreover, CPA exam preparation courses should be well organized to ensure they equip candidates with relevant knowledge and tactics before taking the CPA exam. Finally, the audit firms should support and reduce the workload for audit assistants who are going to take CPA exams. Finally, the most valuable asset of an audit firm is the auditors in general and those with a CPA certificate in particular. The auditors' job change not only affects the quality of the audit engagement, but also influences the efficiency of the audit work. Therefore, the audit firm needs to draft and implement a policy on assisting and rewarding the auditors who take and successfully pass the exams of a CPA certificate. The audit firm needs to make the auditors understand this policy clearly from the beginning to have a clear career direction. The firm should support and reduce the workload for audit assistants who are going to take CPA exams. The company should have a satisfactory remuneration after the auditor obtains a CPA certificate, such as salary increase and career advancement. In addition, during the off-season, the audit firm should also organize training sessions related to the topics required by the CPA exams (for example, auditing and assurance standards, code of professional ethics).

5.2. Limitations and future research

The first limitation of the study concerns the data to be collected. Our survey sample only focuses on audit assistants working at audit firms in Ho Chi Minh City. Besides, the R-squared value of the model shows that the four independent variables of the model only account for 54.2% of the variation of the dependent variable voluntary turnover. It means there are still other factors influencing audit assistants' decision to leave the audit profession. Therefore, future studies can be oriented to explore other determinants of auditor turnover.

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Appendix 1. Professional certificate pressure scale (Source: focus groups' findings)

Professional certificate pressure

1	The curriculum of a bachelor's degree in accounting and auditing major does not help me confidently participate in the CPA exam.
2	The audit firm where I have been or am working has not supported me effectively and not helped me to confidently take the CPA exam.
3	The CPA exam review courses do not help me close the knowledge gap to pass the exam.
4	I do not believe in myself to pass the CPA exam successfully.

Appendix 2. Analysis results of Cronbach's alpha for the scales—first test (Source: according to actual survey data in 2020)

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Perceptions of the profession (PERP), Alpha = 0.763				
PERP1	12.34	3.540	.486	.748
PERP2	11.92	3.524	.585	.696
PERP3	11.70	3.356	.562	.707
PERP4	11.93	3.301	.621	.674
Work conditions (WCON), Alpha = 0.795				
WCON1	16.27	15.527	.552	.763
WCON2	16.24	14.553	.645	.744
WCON3	16.29	15.431	.601	.755
WCON4	16.31	15.092	.634	.748
WCON5	16.22	15.276	.578	.758
WCON6	16.19	15.136	.620	.750
WCON7	16.98	18.280	.125	.844
Work environment (WENV), Alpha = 0.799				
WENV1	35.40	23.383	.551	.774
WENV2	34.57	23.216	.509	.778
WENV3	34.61	23.881	.432	.786
WENV4	34.80	22.887	.523	.776
WENV5	34.50	25.731	.235	.804
WENV6	34.72	22.212	.550	.773
WENV7	35.48	22.271	.538	.774
WENV8	34.61	23.003	.544	.774
WENV9	34.63	26.294	.134	.815
WENV10	34.14	24.231	.495	.781
WENV11	34.16	23.535	.533	.776
Professional Certificate Pressure (CERP), Alpha = 0.784				
CERP1	11.72	3.939	.711	.664
CERP2	11.69	4.329	.682	.686
CERP3	11.76	3.999	.688	.678
CERP4	11.97	5.509	.314	.854

Appendix 3. Total variance explained (Source: according to actual survey data in 2020)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.848	26.580	26.580	5.848	26.580	26.580	3.782	17.192	17.192
2	2.710	12.319	38.900	2.710	12.319	38.900	3.603	16.376	33.568
3	2.083	9.468	48.367	2.083	9.468	48.367	2.426	11.025	44.593
4	1.542	7.010	55.378	1.542	7.010	55.378	2.373	10.785	55.378
5	.985	4.476	59.854						
6	.924	4.198	64.052						
7						

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.

Appendix 4. Rotated component matrix^a (Source: according to actual survey data in 2020)

	Component			
	WENV	WCON	PERP	CERP
PERP1	.139	.229	.675	.024
PERP2	.114	.133	.740	-.126
PERP3	.141	.087	.715	-.196
PERP4	.033	.121	.789	-.151
WCON1	.036	.693	.154	.053
WCON2	.075	.774	.029	-.136
WCON3	.101	.697	.275	-.030
WCON4	-.028	.786	.127	-.100
WCON5	.157	.674	.076	-.174
WCON6	.153	.733	.069	-.073
WENV1	.606	.470	-.002	-.047
WENV2	.640	.120	-.052	.084
WENV3	.535	.129	.071	-.060
WENV4	.620	-.043	.118	-.202
WENV6	.699	-.057	.111	-.089
WENV7	.712	.020	-.016	-.081
WENV8	.623	.038	.140	-.220
WENV10	.584	.128	.175	-.033
WENV11	.650	.116	.082	-.057
CERP1	-.107	-.117	-.209	.832
CERP2	-.203	-.122	-.136	.818
CERP3	-.131	-.135	-.092	.863

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.



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