

Effects of Work Stress on Audit Quality: Mediating Role of Time Pressure and Work Overload

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ABSTRACT: Background and Aim: The effectiveness of the audit process can be significantly impacted by various factors including fees, workload, the reputation of the auditing firm, and other relevant considerations. The aim of this study was to explore the effects of work stress on audit quality with considering the mediating role of time pressure and work overload.

Methods: A descriptive correlational study was used by focusing on structural equation modeling. The study consisted of 218 external auditors from audit companies (108 women) (mean age of 29.74 ± 5.34 years). The research was conducted in Tehran, Iran, in the year 2023. Researcher-made questionnaires were used to collect data. Pearson correlation test and the structural equation modeling were used for data analysis.

Results: Results revealed that work stress significantly affected audit quality. Moreover, work stress significantly affected time pressure and work overload. Furthermore, time pressure and work overload affected audit quality. Finally, time pressure and work overload have significantly mediated the relationship between work stress and audit quality (both $P < 0.001$). Results of model fit indicated that the research model has good fit.

Conclusion: Based on the findings, it is recommended that organizations conduct audits to introduce training initiatives like stress management. This will enable auditors to alleviate the stress levels experienced during the busiest periods of audit work, and equip them with stress management techniques to effectively handle the pressures associated with their responsibilities.

Keywords: Work Stress, Audit Quality, Time Pressure, Work Overload, Mediation

INTRODUCTION

Stress is the body's innate response to various stimuli, changes, and internal or external pressures. These factors can disrupt the body's equilibrium under different circumstances, prompting our intelligent body to address the situation and restore the lost balance. Work stress, specifically, arises from the pressures within the work environment and can manifest through physical, emotional, and behavioral symptoms (Amiruddin, 2019; Marviyan Hosseini & Lari Dasht Bayaz, 2015; May Amy et al. 2022). Essentially, work-related stress is a natural reaction to the challenges and demands of the workplace, potentially impacting the physical and mental well-being of individuals. Indirectly, financial difficulties, family issues, health concerns, and other personal problems can also influence a person's work environment, leading to stress and anxiety (Jones, Guthrie, & Iyer, 2012; Wang, Wang, Wu, Zhu & Lan, 2017).

The aforementioned circumstances can occur to varying degrees within the audit environment. For instance, auditors may encounter dilemmas, particularly when employers restrict them from conducting certain critical tests that are essential for the integrity of the audit process concerning the transaction cycle (Choi, Kim,

Kim & Zang, 2010; Jahida, Ridzoan & Zarefar, 2019). In extreme situations, auditors may face conflicting objectives, necessitating a choice between minimizing costs—which may compromise the quality of the audit by omitting vital procedures—or employing all necessary audit procedures to uphold a high standard of quality. This latter approach may lead to decreased profitability due to increased audit expenses. Consequently, auditing has long been recognized as a profession characterized by significant stress levels. Auditors face various stressors inherent to their profession, which can adversely impact their performance (Zheng & Wu, 2018; Ebrahimi & Javady, 2012; Lopez & Peters, 2012; MohdNor, 2011; Subroto, Wulansari, Mardiaty, 2021). The most detrimental consequence of stress on auditors is the decline in the quality of their work, particularly in the audit reports they produce. Consequently, behavioral factors, including stress, play a crucial role in influencing auditors' job performance. It is essential to identify and analyze the negative implications of stress within the auditing field, as the quality of audits is closely linked to the judgment and well-being of the personnel in auditing organizations (Ismail & Tan, 2011; Lohapan, 2016; Huanmin & Xie, 2017).

Despite the constant time pressure in the auditing environment, auditors must strive to uphold audit quality and meet the employer's time and budget constraints (Karami, Vakilifard, & Mazinani, 2016; Christensen, Newton, & Wilkins, 2021; Mohammadipour & Gholami, 2012). Various empirical studies in this field define audit quality in relation to audit risk, which is the risk of providing an inaccurate opinion on financial statements with significant distortions. Audit quality is determined by the likelihood of the market identifying undisclosed distortions in financial statements and the reporting of such distortions (Farcane, et al. 2022; Amiruddin, 2019; Fisher, 2001; Forooghiard & Bazazzade, 2018). Some studies have explored the negative effects of job stress, including decreased performance, job dissatisfaction, burnout, and the intention to leave the profession. These consequences pose inherent risks to the auditing profession and can undermine public trust and perception of auditors. Auditors experience stress due to various factors including unrealistic deadlines, individual characteristics of human resources, and risks associated with their responsibilities (Wulandari et al. 2024; Utami & Nahartyo, 2013). Given the critical role of audit operations in validating financial statements and instilling confidence in financial statement users, employees in auditing organizations must possess a high degree of professional expertise. Identifying and addressing the stressors impacting auditors is crucial for enhancing their performance and ensuring the delivery of top-quality audit services (Molina-Sánchez et al. 2019; Jungwee, 2007; Pradana & Salehudin, 2013; Wiriyathi, Rasmini, & Wirakusuma, 2014).

Given that users, particularly investors who serve as capital providers and represent a crucial segment of those utilizing accounting information and financial reports, require dependable financial data, and recognizing that auditors are tasked with assessing the quality of this information for users, the current study examines the influence of work stress experienced by auditors. It focuses on the quality of audits while also exploring the roles of time pressure and work overload as mediating variables. Hence, the aim of this study was to explore the effects of work stress on audit quality with considering the mediating role of time pressure and work overload.

METHODS

In this research, a descriptive correlational study was used by focusing on structural equation modeling. The study consisted of 218 external auditors from audit companies (108 women) in Tehran, aged between 24 and 45 years (with a mean age of 29.74 ± 5.34 years), who voluntarily participated. The research was conducted in Tehran, Iran, in the year 2023. The participants were selected through a convenience sampling method. The questionnaire is structured in two sections. The first section gathers demographic information, such as age, gender, work experience, organizational category, and educational attainment. The second section focuses on assessing various aspects of work-related stress, audit quality, time pressure, and workload. To evaluate the research variables, we have incorporated items recommended by prior researchers. Specifically, the questionnaire comprises 7 items related to work pressure, 15 items concerning audit quality, 6 items addressing time pressure, and 5 items focused on workload. Participants are invited to respond to each question in the second section using a 5-point Likert scale, which ranges from (very little) to (very much). We utilized SPSS-26 and Lisrel software to analyze the data. Descriptive statistics such as means and standard deviations were employed to characterize the variables. Pearson correlation test was conducted to assess the relationships between the variables. The structural equation method was applied to investigate the effects of work stress on audit quality with considering the mediating role of time pressure and work overload. The significance level was set at $P < 0.05$.

RESULTS

Descriptive data are presented in Table 1. Descriptive results show that in general the level of work stress is higher than the average. However, audit quality, time pressure and work overload were at medium level. The results of Kolmogorov-Smirnov tests revealed that all variables were normally distributed (all $P > 0.05$). Results

of Independent t tests showed that there were no significant differences between men and women in all variables of the study.

Table 1. Descriptive Data

	Work Stress	Audit Quality	Time Pressure	Work Overload
Mean	3.68	2.39	2.58	2.66
SD	0.57	0.75	0.41	0.25

Bivariate relationships between work stress with audit quality, time pressure and work overload are demonstrated in Table 2. Results revealed significant indirect relationship between work stress and audit quality ($P < 0.001$). Moreover, work stress was directly and significantly associated with time pressure and work overload (both $P < 0.001$). Finally, time pressure and work overload were indirectly and significantly associated with audit quality (both $P < 0.001$).

Table 2. Results of Bivariate Relationships between Variables

	1	2	3	4
1. Work Stress	-			
2. Audit Quality	$r = -0.586$ $P < 0.001$	-		
3. Time Pressure	$r = 0.658$ $P < 0.001$	$r = -0.635$ $P < 0.001$	-	
4. Work Overload	$r = 0.450$ $P < 0.001$	$r = -0.517$ $P < 0.001$	$r = 0.658$ $P < 0.001$	-

Table 3 and Figure 1 show the results of structural equation modelling. Results revealed that work stress significantly affected audit quality ($T = -5.658$). Moreover, work stress significantly affected time pressure and work overload ($T = 5.524$ and $T = 4.529$, respectively). Furthermore, time pressure and work overload affected audit quality ($T = -6.657$ and $T = -5.104$, respectively). Finally, time pressure and work overload have significantly mediated the relationship between work stress and audit quality (both $P < 0.001$). Results of model fit are presented in Table 4 and indicated that the research model has good fit.

Table 3. Results of Structural Equation Modelling

Path	β	T-value
1 work stress => audit quality	0.528	- 5.658
2 work stress => time pressure	0.518	5.524
3 work stress => work overload	0.432	4.529
4 time pressure => audit quality	0.628	- 6.657
5 work overload => audit quality	0.507	- 5.104
	Z	P-value
6 work stress => time pressure => audit quality	5.695	$P < 0.001$
7 work stress => work overload => audit quality	7.418	$P < 0.001$

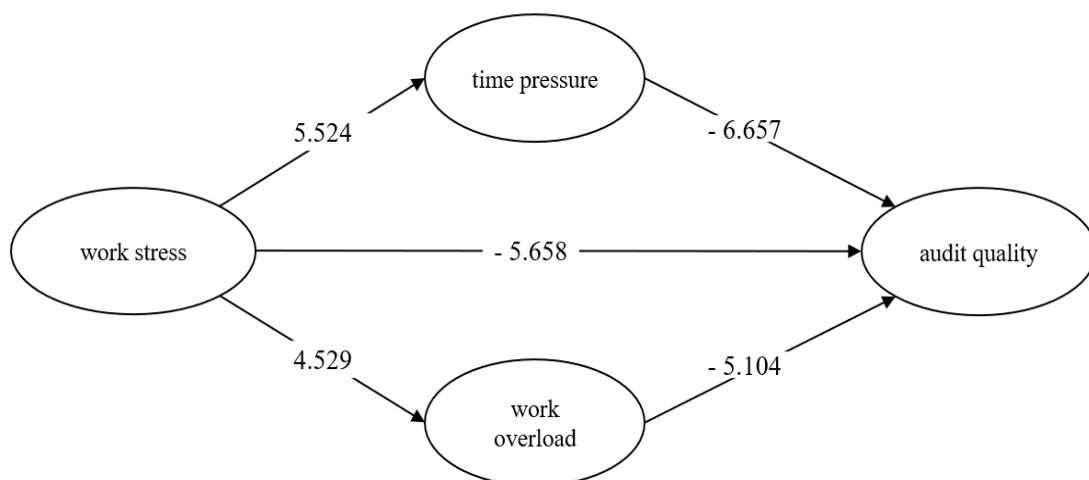


Figure 1. Structural Equation Modelling in the Form of T-Values

Table 4. Results of model fit

Index	Optimal Range	Obtained Value	Conclusion
RMSEA	< 0.08	0.07	Good fit
X ² / df	< 3	2.97	Good fit
RMR	Closer to 0	0.01	Good fit
NFI	> 0.9	0.97	Good fit
CFI	> 0.9	0.96	Good fit

DISCUSSION

Expert auditing plays a crucial role in enhancing the accuracy of financial data disclosed by company CEOs and executive boards. However, the effectiveness of the audit process can be significantly impacted by various factors including fees, workload, the reputation of the auditing firm, and other relevant considerations. The aim of this study was to explore the effects of work stress on audit quality with considering the mediating role of time pressure and work overload. Results revealed that work stress significantly affected audit quality. Moreover, work stress significantly affected time pressure and work overload. Furthermore, time pressure and work overload affected audit quality. Finally, time pressure and work overload have significantly mediated the relationship between work stress and audit quality.

To interpret these findings, it can be stated that when auditors' workload exceeds their usual capacity, they experience work stress and psychological pressure. According to the job demand control support model, those who have control over the pressures determine the level of work stress, and excessive workload can lead to job stress, ultimately impacting the quality of auditors (Choi, Kim, Kim & Zang, 2010; Jahida, Ridzoan & Zarefar, 2019). Job demands can increase work tension and stress in auditors, requiring them to exert more effort to meet various and sometimes conflicting work demands, ultimately affecting their performance and the quality of their work. Compliance with the professional code of conduct is an effective way to protect against stress, which can increase the independence of auditors. Therefore, auditors and auditing institutions should be mindful of the negative impact stress can have on both their external and internal independence (Karami, Vakilifard, & Mazinani, 2016; Christensen, Newton, & Wilkins, 2021; Mohammadipour & Gholami, 2012).

It is important to recognize that auditors' experiences can affect the relationship between stress and inner independence. Additionally, the expertise of auditors can also play a role in this relationship. It is essential to consider these factors when making decisions. A heavy workload can lead to a decline in job performance among individuals. This suggests that work experience is a key factor contributing to increased workload and stress levels, resulting in decreased performance (Molina-Sánchez et al. 2019; Jungwee, 2007). Conversely, individuals with more work experience who are well-acquainted with their job requirements tend to experience lower levels of stress and workload, which in turn positively impacts their performance. By enhancing working conditions, implementing effective supervision, and managing employee workloads, organizations can reduce job-related stress and enhance overall performance. The significance of work experience in relation to workload and job performance underscores the importance of providing comprehensive training tailored to each individual's job responsibilities to ensure a clear understanding of their role (Farcane, et al. 2022; Amiruddin, 2019; Fisher, 2001; Forooghi-rad & Bazazzade, 2018).

Based on the findings, it is recommended that organizations conduct audits to introduce training initiatives like stress management. This will enable auditors to alleviate the stress levels experienced during the busiest periods of audit work, and equip them with stress management techniques to effectively handle the pressures associated with their responsibilities. Audit organizations can alleviate the psychological strain and job stress experienced by auditors during audits by implementing thorough and adaptable planning, as well as by engaging multiple auditing experts to lighten the workload (Amiruddin, 2019; Marviyan Hosseini & Lari Dasht Bayaz, 2015). Additionally, fostering a professional rapport between company auditors and their subordinates, enhancing the work environment, and minimizing conflicting roles and expectations, along with clarifying reporting responsibilities, can also be effective strategies. Also, audit supervisors can take a step towards preventing tension in the work environment by establishing a good working relationship with their subordinates, which in turn reduces common work environment stressors such as high work pressure, ambiguity of duties, etc. (Jahida, Ridzoan & Zarefar, 2019).

In addition, the participation of people in decision-making can be an effective step in preventing the occurrence of tensions in the profession. When a person does not feel confident in his organizational role regarding the goal, expectations and performance evaluation method, he is always in anxiety; If managers directly involve people in decision-making, it will reduce the ambiguity of a person regarding his goals and duties, and as a result, his tension or mental pressure will be reduced (Ismail & Tan, 2011; Lohapan, 2016; Huanmin & Xie, 2017). Therefore, in order to prevent organizational tensions, the manager can use the tool of participation of employees and members of the organization (especially capable employees). Changing the managers' practice in dividing work is also a solution to reduce one of the main sources of stress, that is, work

pressure. If the managers are aware of the fact that assigning extra work to employees can cause nervous pressure in them, they can prevent this pressure by dividing the work logically (Wulandari et al. 2024; Utami & Nahartyo, 2013).

The research has limitations due to the utilization of a self-reported questionnaire, which may introduce bias, social desirability, situational effects, and respondent carelessness. While the study aimed to explore factors influencing auditor quality, aspects such as audit fees, audit institutions' work practices, political affiliations, etc., were not examined. It appears that a qualitative research approach is required to address these matters. Future studies should address these issues.

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