



The Relationship between Auditors Stress with Audit Quality and Internal Control Weakness

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Abstract

The present study is concerned about the relationship between auditors' work stress with audit quality, internal control weakness, and the impact of being a primary auditor on the relationship between auditors' work stress and audit quality in listed companies on the Tehran Stock Exchange.

The study's statistical sample involves 111 listed firms on the Tehran Stock Exchange from 2012 to 2018, and the Stata Software is used for data analysis.

The findings argue that auditors' stressful work environment is likely to deteriorate the quality of audit services. Moreover, we articulate that being the primary auditor plays a moderating role in the association between audit work stress and audit quality. Finally, the results show that job stress does not let auditors understand internal controls to identify material weaknesses and recommend efficient solutions.

We expect this study to contribute to practical issues on auditors' work stress and provide some scientific evidence for improving the supervisory policies. We hope this study proposes a quantitative method to contribute to work stress decrease and the system for dealing with the stress reaction.

Keywords: Auditor's Stress, Auditor's Pressure, Audit Quality, Internal Control Weakness

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1. Introduction

Due to the nature of auditors' performance, their work is influenced by a stressful environment (Campbell et al., 1988). The most destructive impact of work stress on auditors' performance is their works' inappropriate quality (prepared audit report) (Choo, 1995). This is because audit quality is deeply dependent on the judgment and health of the staff of audit firms (Otley and Pierce, 1996). This occupation usually defines by a heavy workload, numerous deadlines, and excessive time pressure. This issue creates stressful situations for the auditors that, if not detected on time, not controlled, and have no appropriate attitude, would depreciate the system (Goolsby, 1992). Agoglia et al. (2010) and Lo'pez and Peters (2012) argue that the stress of work or budget schedule would lead to performance and audit quality drop. Yan and Xie (2016) indicate that auditors in China suffer from work stress, derived from the time limit, human resources, responsibility risk, etc. The stress is peaked in the high season, namely when the auditor works more than 10 hours a day.

In sum, individual work stress creates the combinational effects of time pressure, workload, cost control, performance evaluation, and legal risks and responsibilities. This stress and occupational depreciation influence auditors' psychological activities and behavioral decisions, affecting the audit performance. Usually, the observed effects go up in proportion to the growth of stress. However, according to the motivation theory, when there is an effective occupational control on work needs, the effect of pressure on audit quality may be limited or even profitable (McClenahan et al., 2007). Hence, the central question of the study is whether there is a relationship between the work stress of auditors and audit quality or not.

To analyze the audit risk during the first audit of a new customer, the auditor should have a comprehensive understanding of the customer's operational characteristics, accounting policies, and industry development and acquire other information. In this case, the auditor needs more effort to first audit a new customer, including work hours, human and cash resources, etc. The more the auditor's customers, the higher the workload would be, and the less is the work hours and audit resources for each customer, especially new customers. This is how a direct conflict occurs between work demand and work control. Moreover, the higher the intensity of difference, the more is probably the work stress and its negative consequences on audit performance. Hence, in non-primary inspections for regular customers, given the workload and a certain level of stress, the effectiveness of wok control on work demand improves by the upcoming audits, and the accumulation of experience and knowledge can be obtained through acquaintance with and dominance on personal information of the customer and the industry. The enhancement of effectiveness would decrease work stress's negative effects on audit quality (Yan and Xie, 2016). Hence, the second question is whether the auditor's first audit influences the relationship between auditors' work stress and audit quality.

This is the first study in Iran's audit business environment involving audit job stress consequences on auditors' performance. Since accounting and auditing professions have a short history in this geographic area, there are many academic gaps. For example, lack of academic and professional bodies may expose a significant amount of job pressure and stress to the practitioners due to the work overload besides tight time budgets and role ambiguity and conflict for those newly employed by audit firms. Therefore, we are motivated to fulfill such a profound gap implying the role of audit work stress on the quality of audit services. Furthermore, previous studies examining job stress's potential role rely on audit quality as a dependent factor. Whereas in addition to such a factor, we estimate the potential role of other elements such as being a primary auditor and the knock-on influence of work stress on detecting material internal control weaknesses and providing an efficient recommendation for a firm's financial operation improvement.

Therefore, this study's outcome seems to provide some useful contributions in terms of academics and practice.

2. Theoretical issues and related literature

Accounting, especially auditing, has long been recognized as a highly stressful occupation (Campbell et al., 1988). Hard efforts, the time limit for personal life, and passing official accounting tests have been among auditors' common and permanent challenges. One of the most critical factors affecting the level of job pressure and performance, suggested by previous studies, is the potential and inevitable conflict between assigned duties related to work and family responsibilities (Jeffrey and Saroj, 1985; Boles et al., 1997). It is also suggested that such an issue is more likely to deteriorate for those possessing their own families (Lo and Ramayah, 2011). In other words, such a conflict is the consequence of incompatibility between work and family has an adverse influence on employees' health and well-being (Kinnunen et al., 2006; Noor, 2003). It is supposed that such a conflict is under lack of balance between work, housework, and child-care responsibilities, which may lead to severe pressure and stress at work, resulting from some negative outcomes (Posig and Kickul, 2004; Karatepe and Tekinkus, 2006). The underlying assumption refers to two demands simultaneously, which cannot be performed equally, consequently causing incompatibility of function and discomfort in both positions and work stress. According to the above discussion, since audit work requires excellent effort besides a tight time budget, it is expected that audit job performance causes some inevitable conflicts among auditors and their families, which in turn may deteriorate the audit quality. In this regard, Zhao and Namasivayam (2012) show that individuals engaging in the conflict between work and family are more likely to have ambiguity, causing reduced organizational commitment. Venkatesh et al. (2019) argue that children's Internet addiction affects parents' job outcomes, and the effects are mediated by family-to-work conflict. Putra and Sudana (2019) show that auditor's role conflict positively impacted the auditor's stress and showed that core self-evaluations weakened the auditor's role conflict. Farrastama et al. (2019) find that job stress has a positive and significant effect on counterproductive work behavior. Amiruddin (2019) finds that work-family conflict and role ambiguity have a considerable impact on work stress. Furthermore, his core testing suggests that only time pressure significantly influences audit quality reduction behavior.

The other factors affecting the stress level are role conflict and role ambiguity, which provide arguments among researchers about its association (Ahmad & Taylor, 2009; Rodriguez-Escudero et al., 2010; Javady et al., 2012). Role conflict is defined as opposing roles of employees or members of organizations, in which they must obey all regulations and laws and be loyal to their organizations, besides that. As a professional member, they must follow ethical codes and professional performance standards (Siegel and Marconi, 1989). Robbins & Judge (2008) define that role conflict happens when role responsibilities are less likely to comply with each other. Role conflict is also defined as a situation in which employees have more than one role in their work atmosphere and society where the job assigns have contrary expectations or goals against each other and are in conflict to specific rules or values from each part, which in turn may lead to a battle for those who are engaged.

Consequently, such a job condition refers to time budget pressure in task performance caused by a lack of clarity or understanding of one's proper role in an organization (DeZoort and Lord, 1997). Richard et al. (2019) find that role stressors, including role ambiguity, role conflict, and role overload, positively and significantly affect job burnout. Also, job burnout has a positive and significant impact on reduced audit quality practices. Ferry et al. (2019) find that role conflict and ambiguity affect the auditors' independence,

while spiritual intelligence moderates the impact of role conflict and role ambiguity on the auditor's independence. Umar et al. (2017) also articulate that pressure affects dysfunctional audit behavior, while information technology does not affect dysfunctional audit behavior. These results also indicate that dysfunctional audit behavior is having an adverse impact on fraud detection. Shofiatul, Baridwan, and Hariadi (2016) showed that the role conflict positively affects auditor desertion tendency, though the impact of role ambiguity on desertion is not significant. Utami and Nahartyo (2013) found a positive relationship between role conflict and role overload and occupational depreciation, but role ambiguity has no meaningful relationship with occupational depreciation. By evaluating the role of more understanding of uncertainty and conflict as the sub-factors of stress in occupational performance, MohdNor (2011) revealed that occupational performance is only influenced by role ambiguity. There is no relationship between role conflict and occupational performance. Soo Young Kwon (2014) perceived that audit firms' change would increase audit work hours and increase auditors' payment. Moreover, audit quality is remained unchanged and even reduced in some cases.

Forooghirad and Bazazzade (2018) argue that the increased auditors' stress has a negative impact on audit quality, in which such an effect is more intense for first audit works. Yan and Xie (2016) discovered that, in general, the decrease of audit quality is not due to the work stress of auditors, and understanding work stress relies on the auditors' characteristics. The auditors of international audit firms and those who have some common interests respond more to the work stress than industrial experts. When facing the state-owned firms, auditors are more inclined to respond. The results of this study show that audit firms pay more attention to the work stress of auditors. Chen and Silverthorne (2008) show that control position in accountants (the position of internal or external control) play a significant role in predicting the amount of job satisfaction, stress, and performance of auditors in Taiwanese audit firms. Besides, people with higher internal control positions experience lower stress levels and higher job satisfaction levels and performance levels. Moreover, if the occupational stress is not controlled appropriately, job satisfaction would be little, work performance will be weak, and the physical effect will be negative. Larson et al. (2004) analyzed how work stress contributed to occupational depreciation and job satisfaction of internal auditors and discovered that some organizational stress factors compared with individual stress factors (time pressure, role ambiguity, role conflict, and role overload), are the source of more stress for internal auditors.

Yan and Zhi (2016) propose a negative relationship between work stress and audit quality in being the new clients' primary auditor. Dody and Tiara (2018) support the idea by ensuring auditor tenure and auditor reputation affect audit quality. A provided meta-analysis by Salehi, Fakhri, and Daemi Gah (2019) illustrates no significant relationship between these two variables, in general. But, considering audit quality based on several measurements into four sub-groups of discretionary accrual, fraudulent reporting, type of comment, and other quality criteria, they show that discretionary accrual and fraudulent reporting confirm a positive relationship, kind of auditor opinion, and other quality criteria show no significant correlation.

Narayanaswamy et al. (2019) articulate that mandatory audit firm rotation does not appear to have improved audit quality, reduced audit costs, and increased audit market competition. Maria et al. (2018) support the idea that auditors' long-term tenure on discretionary accruals in Spain affects auditors' quality and independence.

Financial statements of audited reports of auditors are among such documents that have attracted more attention to investors recently. Carlo and Davide's (2019) findings particularly emphasize the role of Internal Audit as an important corporate governance mechanism and on the new challenges faced by external auditors in the form of higher

audit requirements. Chan et al. (2019) suggest that additional audit effort effectively reduces the risk of financial misstatements for clients with weak internal controls, which in turn requires overload stress for auditors to perform their duties.

Auditing the internal control dominant on financial reporting is carried out to make a statement about an economic unit's internal control effectiveness. Although the aim of such an audit is different from auditing financial statements, these two audits will perform in an integrated manner, so the auditor should schedule and perform in such a way to fulfill the objectives of both audits. In such a case, it is expected that material weaknesses in internal controls are likely to expose additional risk to external auditors, which may require more significant effort and time to moderate such risks. Therefore it may exert further pressure considering tight audit budgets.

To achieve the objectives of the study and given the proposed literature, the following hypotheses are formulated:

H₁: Audit work stress play a deteriorating role in audit quality.

H₂: Being the primary auditor plays an intensifying role in determining the association between auditors' work stress and audit quality.

H₃: Audit work stress play a deteriorating role in internal control weaknesses.

3. Research methodology

3.1. Statistical population

The investigated data include listed firms on the Tehran Stock Exchange for the period of 2012-2018. Since the Securities and Exchange Organization has disclosed internal control weaknesses compulsory, it is required to analyze the forward-looking data such as estimating the discretionary accruals and operational cash flow. Thus research models should be analyzed for such a period. Also, the data of 2010, 2011, and 2018 are considered for calculating the standard deviation of return on assets and estimating the model of discretionary accruals. To test the study's hypotheses, multivariable linear regression analysis and panel method are used for analyzing the research model. First, the appropriate method for model fitting is selected. Using the F-Limer and Hausman tests and by analyzing the primary hypotheses of the regression, including the test of normality Jarque-Bera, variance homogeneity test of Breusch-Pagan, and autocorrelation test of Breusch-Godfrey, the appropriate method for fitting the selected model is simple linear regression, simple linear regression with the time factor, panel method with fixed effects, panel method with random effects, and panel method with pooled data.

The statistical sample of this study is selected by screening the statistical population, such that only companies with the following conditions are selected for the study:

Table 1: final volume of the sample

Characteristic	No.
Total no. of listed firms on the Stock Exchange at the end of 2017	523
No. of firms that were not active during 2011-2017 in the Stock Exchange (were omitted from the Stock Exchange or entered the Over-the-counter market)	(151)
No. of firms listed on the Stock Exchange after 2010	(38)
No. of firms that were affiliated withholdings, investment, financial intermediaries, banks, and leasing companies	(66)
No. of firms that changed their fiscal year during 2010-2017	(11)
No. of firms that their fiscal year not ended on March	(67)
No. of firms that have more than three months of transaction halt during 2010-2017	(68)
No. of firms that their required information was not available or defected	(11)
Total no. of sample firms	111

3.2. Variables measurement

To measure the qualitative variables of this paper, such as audit quality and material internal control weaknesses as dependent as well as audit work stress as independent, and

other control variables, the following quantifiers are applied:

3.2.1. Audit quality (discretionary accruals)

The absolute value of discretionary accruals ($|DAC|_{it}$) is computed using the following equation (Francis et al., 2005):

$$\Delta WC_{it} = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \varepsilon$$

ΔWC_{it} : Changes in working capital of the firm i in the year t

CFO_{it-1} : Operational cash of the firm i in the year t-1

CFO_{it} : Operational cash of the firm i in the year t

CFO_{it+1} : Operational cash of the firm i in the year t+1

ΔREV_{it} : Income changes of the firm i in the year t

PPE_{it} : Net fixed assets of the firm i in the fiscal year t

The above model is administered for each industry-year to analyze the information. The absolute value of model residual, which indicates optional obligations, will be used as the audit quality agent. Having considered the most reliable and accurate measurement of audit quality based on Iran's business environment's requirements and features by prior literature, including Sajadi et al. (2012) and Forooghirad and Bazazzade (2018), we employed such a measurement in this paper.

3.2.2. Internal control weakness (ICMW)

This study's independent variable is the presence or absence of significant internal control weak points based on the audit report. Since in auditor report, only the significant weak points of internal control dominant on financial reporting are inserted, and other weak points that presented by the auditor in management letter is avoided, this paper only considered the dominant significant weak points of internal control on financial reporting, which is presented by the auditor's report. In case the firm has an internal control weakness, this variable is 1; otherwise, 0 will be assigned.

3.3. Moderator variable

The study's moderator variable is the first audit (FST) of auditor for the firm i, calculated using the dummy variable of auditor change. If the auditor audits the first year of the firm i 1, otherwise, 0 will be considered (Yan and Zhi, 2016).

3.4. Independent variable

The independent variables of the study include work stress (WS) of the auditor and the interactive effect of the first audit with work stress of auditor (FST*WS), which is measured as follows:

In the sample under study, work stress is measured among the listed firms by the auditor given the number of firms and commercial complication of each firm, so work stress is calculated via the following equation:

$$WS = \frac{\sum_{i=1}^m \sum_{j=1}^n TA_{ij}}{m}$$

WS: work stress of auditor

TA_{ij} : natural logarithm of total assets of j firms audited by auditor i.

n: total number of listed firms by the auditor audited in the fiscal year.

m: number of official auditors of a particular j firm.

In most cases, two auditors are responsible for auditing an annual report ($m=2$), though this number is three in some cases. The work stress of auditors is indicative of the mean work stress bore by two or three official auditors of a particular firm (Yan and Zhi, 2016).

3.5. The interactive effect of work stress on the first audit (WS*FST)

The variable of the interactive effect of the work stress of auditors with the first audit is computed by multiplying the values of two variables of work stress of auditor and first audit (Yan and Zhi, 2016).

3.6. Control variables: in this study, several variables were controlled to maintain their effects on the relationship between independent and dependent variables.

Firm size (SIZE): natural logarithm of the book value of total assets, put in the model to control the size (Yan and Zhi, 2016).

Financial leverage (LEV): financial leverage is computed by dividing total debts by total assets (Yan and Zhi, 2016).

Operational cash flow (CF): net input and output flow of operational cash divided into the book value of total assets for homogeneity (Yan and Zhi, 2016).

Financial risk (RISK): in this paper, the financial risk of firms is concentrated through the bias of return on assets for three years (Yan and Zhi, 2016).

Loss (LOSS): a dummy variable that, if the firm is losing, it is 1, otherwise 0 (Yan and Zhi, 2016).

Market value to book value of equity (TQ): is indicative of growth opportunities, which are computed by dividing the market value of equity into the book value of equity (Yan and Zhi, 2016).

The number of board members (SPV): is a natural logarithm for the number of board members (Yan and Zhi, 2016).

Firm age (Age): The natural logarithm of the number of firm ages from establishment data (Yan and Zhi, 2016).

Auditor's reputation (BIG): a dummy variable, such that if the firm is audited by the audit organization 1, otherwise, 0 (Yan and Zhi, 2016).

Year (Year): a dummy variable put in the model to control the year's effects (Yan and Zhi, 2016).

Industry (Industry): a dummy variable used for the effects of each industry's particular characteristics in models (Yan and Zhi, 2016).

First hypothesis test model

$$|DAC|_{it} = \beta_0 + \beta_1 WS_{it} + \beta_2 Size_{it} + \beta_3 Debt_{it} + \beta_4 CF_{it} + \beta_5 Risk_{it} + \beta_6 Loss_{it} + \beta_7 INV_{it} + \beta_8 REC_{it} + \beta_9 TQ_{it} + \beta_{10} SPV_{it} + \beta_{11} Age_{it} + \beta_{12} Big_{it} + \beta_{13} Year_{it} + \beta_{14} Industry_{it} + \varepsilon_{it}$$

Second hypothesis test model

$$|DAC|_{it} = \beta_0 + \beta_1 WS_{it} + \beta_2 FST_{it} + \beta_3 WS_{it} * FST_{it} + \beta_4 Size_{it} + \beta_5 Debt_{it} + \beta_6 CF_{it} + \beta_7 Risk_{it} + \beta_8 Loss_{it} + \beta_9 INV_{it} + \beta_{10} REC_{it} + \beta_{11} TQ_{it} + \beta_{12} SPV_{it} + \beta_{13} Age_{it} + \beta_{14} Big_{it} + \beta_{13} Year_{it} + \beta_{14} Industry_{it} + \varepsilon_{it}$$

Third hypothesis test model

$$ICMW_{it} = \beta_0 + \beta_1 WS_{it} + \beta_2 Size_{it} + \beta_3 Debt_{it} + \beta_4 CF_{it} + \beta_5 Risk_{it} + \beta_6 Loss_{it} + \beta_7 INV_{it} + \beta_8 REC_{it} + \beta_9 TQ_{it} + \beta_{10} SPV_{it} + \beta_{11} Age_{it} + \beta_{12} Big_{it} + \beta_{13} Year_{it} + \beta_{14} Industry_{it} + \varepsilon_{it}$$

If the coefficients of independent variables are significant at a 5% error level in these models, the research hypotheses will be accepted.

4. Empirical results

4.1. Descriptive statistics

The descriptive statistics reported in Table 2 indicate the descriptive parameters of each variable separately. These parameters mainly include the information related to central indexes, including minimum, maximum, mean, median, and information related

to dispersion indexes, including standard deviation. The essential primary index is mean, which is indicative of the balance point and center of gravity of distribution and an appropriate index for indicating the centrality of data.

Table 2: descriptive statistics of variables

Sign	Variable	No. of observation	Mean	Std. dev.	Min.	Max.
$ DAC_{it} $	Audit quality	555	0.0468	0.0443	0.00003	0.4133
WS_{it}	Work stress of auditor	555	15.4398	0.9665	9.8423	17.4722
FST_{it}	Auditor change	555	0.4018	0.4907	0.0000	1.0000
$Size_{it}$	Firm size	555	28.0730	1.3653	24.3485	32.9655
$Debt_{it}$	Financial leverage	555	0.6465	0.2273	0.0436	2.3152
CF_{it}	Operation cash to book value of total assets	555	.1140	0.1272	-0.3361	0.5684
$Risk_{it}$	Risk	555	0.0559	0.0539	0.0004	0.5838
$Loss_{it}$	Dummy variable of loss	555	0.1532	0.3605	0.0000	1.0000
LnV_{it}	Inventory to operational income	555	0.3374	0.2472	0.0000	2.8134
REC_{it}	Accounts receivable to operational income	555	0.3917	0.3727	0.0000	2.2789
TQ_{it}	Market value to book value of equity	555	2.4458	4.5697	-31.5793	63.4352
SPV_{it}	No. of board members	555	1.6149	0.0425	1.6094	1.9459
Age_{it}	Firm age	555	3.6622	0.3334	2.7726	4.2047
Big_{it}	Dummy variable of auditor reputation	555	0.2523	0.4347	0.0000	1.0000
$ICMW_{it}$	Internal control weakness	555	0.4396	0.4968	0.0000	1.0000

Resource: research findings

4.2. Combination test

To estimate the pattern, the F test should first examine the pooled or panel data. This test's null hypothesis shows the pooled data, and the first hypothesis indicates the panel data. Given the pooled test results, which are depicted in Table 3, the null hypothesis concerning the pooled data is rejected at a 99% confidence level for all three models. Hence, the panel data model should be used for the estimation of coefficients of these three models.

Table 3: The results of the pooled test

	Calculated statistic	Prob. Level
Model 1	1.58	0.0007***
Model 2	1.58	0.0008***
Model 3	12.68	0.0000***

Note: *** is significance at 99% level

4.3. Test of determining the fixed or random effects

In the Hausman test, the model coefficients are estimated by both estimators. Then, the significance of the difference between the estimated coefficients will be examined. If such a difference is significant, the model with the fixed effect is preferred to random effects. The null and opposite hypotheses are expressed as follows:

$$H_o : \beta_{FE} = \beta_{RE}$$

$$H_1 : \beta_{FE} \neq \beta_{RE}$$

In which β_{FE} and β_{RE} are model parameters in fixed effects and random effects approach. Under the null hypothesis, both estimators of fixed and random effects are compatible, but only the estimator of random effects is efficient asymptotically. This is while under the opposite hypothesis, only the estimator of fixed effects is compatible. In case of rejection of the null hypothesis, the model with fixed effects has priority over the model with random effects, and a model with fixed effects should be used. The Hausman diagnostic test or m statistic is as follows:

$$m = \hat{q}(\hat{V}_{FE} - \hat{V}_{RE})^{-1}\hat{q}$$

Such that \hat{V}_{FE} and \hat{V}_{RE} represent the compatible estimators of the asymptotic covariance matrix of $\hat{\beta}_{FE}$ and $\hat{\beta}_{RE}$ $\hat{q} = \hat{\beta}_{FE} - \hat{\beta}_{RE}$, respectively. The m statistic has χ^2 distribution with K degree of freedom. K represents the matrix order $(\hat{V}_{FE} - \hat{V}_{RE})$.

Table 4: The results of the Hausman test

	Calculated statistic	Prob. Level
Model 1	43.79	0.0000***
Model 2	43.39	0.0001***
Model 3	27.35	0.0069***

Note: *** is significance at 99% level

4.4. Results of model estimation

The results of the robust model estimation are reported in Table 5. In the panel data model, four classic hypotheses of econometrics comprising linearity among variables, exogeneity of descriptive variables, the variance of homogeneity, and absence of serial autocorrelation among disrupting components are discussed, and the reliable results are reported.

Given the used regressions, only the intercept of the third model is significant. The third model's intercept is equal to 2.7154, which is significant at a 99% confidence level.

According to the observed results, the audit work stress (WS) variable is negatively associated with the audit quality. The results coefficient numbers suggest that by a 1% increase in auditors' work stress, audit quality will decrease on average by 0.0065%. Meaning, as it is expected and proposed by Richard et al. (2019), Umar et al. (2017), and Forooghirad and Bazazzade (2018), intense work stress, related to tight time budget, work ambiguity, and conflict, is likely to expose additional workload to auditors, which in turn may deteriorate the quality of audit services outcome.

However, further analyses demonstrate that being the primary auditor proxied by (WS*FST) plays a moderating role in the association between audit work stress and audit quality. It means auditors experience less audit work stress under extended time budget, appointing experienced auditors, and improved audit independency. In this regard, Dody and Tiara (2018) and Salehi, Fakhri, and Daemi Gah (2019) provide similar findings.

Table 5: The results of model estimation

Variable	Model 1	Model 2	Model 3
	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)
Constant	0.0361 (0.0868)	-0.0646 (0.1009)	2.7154 (0.9406)
WS_{it}	-0.0065 (0.0024)	-0.0056 (0.0031)	0.0248 (0.01667)
FST_{it}		-0.0037 (0.0028)	
$(WS * FST)_{it}$		0.0051 (0.0245)	
$Size_{it}$	-0.0030 (0.0017)	-0.0098 (0.0076)	-0.0582 (0.0297)
$Debt_{it}$	0.0259 (0.0098)	0.0353 (0.0094)	0.3726 (0.1494)
CF_{it}	0.0336 (0.0153)	0.0647 (0.083)	0.3064 (0.2133)
$Risk_{it}$	0.1876 (0.0374)	0.1093 (0.0365)	0.5274 (0.4773)
$Loss_{it}$	-0.0095 (0.0060)	-0.0103 (0.0062)	0.1386 (0.0841)
LnV_{it}	-0.0233 (0.0083)	-0.0418 (0.0098)	0.1168 (0.0837)
REC_{it}	-0.0111 (0.0055)	-0.0079 (0.0051)	-0.0529 (0.0408)
TQ_{it}	-0.0007 (0.0004)	-0.0014 (0.0007)	0.0062 (0.0028)
SPV_{it}	-0.0169 (0.0470)	0.1416 (0.0862)	-0.9765 (0.1109)
Age_{it}	0.0012 (0.0062)	0.0009 (0.0069)	0.0989 (0.1309)
Big_{it}	-0.0186 (0.0079)	-0.0115 (0.006)	-0.1745 (0.1176)
Number of obs.	555	222	333
Adj. R - squared	0.1201	0.2348	0.0783

Note: *** is the significance level of 99%, ** is the significance level of 95%, and * is the level of significance of 90%.

The obtained results also show that the variable (WS) has a positive impact on the reported material internal control weaknesses. In this respect, the coefficient of variable provides that by a 1% increase of audit work stress, the internal control weaknesses would be increased by 0.0248%.

The coefficient of the variable of firm size is negative and significant in all three models. Thus, by a 1% increase in the variable of SIZE, audit quality at a 90% level will decrease by -0.0064%, and weakness on internal controls will reduce by -0.0582% at a 95% confidence level. Collectively, it means that more prominent clients are more likely to suffer from lower audit quality and more considerable internal control weaknesses.

In contrast, the financial leverage coefficient is positive in all three models at a 99% confidence level. Hence, by a 1% increase in the Debt variable, audit quality will increase on average by 0.0306%, and weakness in internal controls will increase by 0.3726%. It means that financial leverage plays an ameliorating role in audit quality.

Operational cash to book value of total assets increases audit quality and weakness in internal controls. CF's variable coefficient in model 1-3 is estimated as 0.0336, 0.0647, and 0.3064, respectively, which are significant at 95, 99, and 90% confidence level. On the other hand, the risk is another factor for the increase in audit quality. By a 1% increase in the variable of risk, audit quality will increase on average by 0.1484%. The risk variable's coefficient is significant in the first two models at a 99% confidence level. In

contrast, the coefficient of this variable is not significant in model 3. Hence, risk has no impact on weakness in internal controls.

It is also suggested that, by a 1% increase in the number of board members, audit quality will enhance by 0.1416%, but the weakness of internal controls drops by -0.9765%. The SPV variable coefficient is significant in model 2 at a 90% level and a 99% level in model 3. The auditor's reputation's dummy variable is also a decreasing factor for audit quality and internal controls weakness. By a 1% increase in the significant variable, audit quality will decrease on average by -0.0151%, and the weakness of internal controls will also reduce by -0.1745%. The coefficient of the dummy variable of auditor's reputation in models 1-3 is significant at 99, 90, and 90%, respectively.

The age variable coefficient is not significant in all three models, so the firm age has no impact on audit quality and internal controls' weakness. Moreover, industry and year's dummy variables were also considered in the models, and their resultant coefficients are not significant.

By comparing the first two models, we can say that model 2 outperform model 1 in terms of auditor change and combined variable (WS*FST). The coefficient of determination (R^2) of the second model is 23.48%, and the descriptive power of the first model is 12.01%. The descriptive power of model 3 is also 7.83%.

5. Conclusion

This investigation's main objective is to determine the potential effect of work stress on job performers' quality in the audit job environment. To be more precise, we extend our primary objective and current literature through three sub-objectives as follows.

First of all, when the stress of auditor increases, audit quality is likely to be decreased. In general, auditors are exposed to a stressful environment that affects their performance due to their work nature. The most destructive consequences of occupational stress on auditors' performance is the inappropriate quality of their work's outcome. The presence of heavy workload, numerous deadlines, excessive time pressure, work conflict and ambiguity, and due to conflict of interest which may exist in performing audits between management and investors and other beneficiaries, auditors are dealing with many people inside or outside the organization that ask for a broad spectrum of needs and expectations. Satisfying these divergent expectations and demands from clients' side in the workplace defined by the client creates some stressful situations that, due to failure to on-time recognition, not controlling, and dealing with these occupational stresses, would lead to depreciation and lower quality of the audit. It is believed that the stress related to work or budget scheduling would interrupt the successful implementation of audit methods and influence audit quality. The stress of time scheduling or the set deadline would intensify the auditors' pressures, and the audit workload hurts the audit quality at the firm level.

Moreover, the study results suggest a positive relationship between auditor's stress and audit quality of the first audit in the Tehran Stock Exchange. In contrast to an aspect evaluating the audit risk during the first audit of a new customer, the auditor should have a comprehensive understanding of the customer's operational features, accounting policies, and industry development and acquire other related information. In this case, since the auditors may have an extended time budget for performing their original works as well as improved independence, the audit quality is expected to be enhanced.

Finally, the obtained results demonstrate that internal controls' material weaknesses are expected to be more profound in the case of higher audit work stress. Internal control audit of financial reporting aims to decide the effectiveness of internal control of a business unit's financial reporting. However, these two audit processes are performed in an integrated manner, so auditors should plan and execute in a way that meets the objectives of both audits. It is believed that the increase of stress and creating mental tension in audit staff would lead to failure in on time recognition of audit weaknesses,

and they cannot have sufficient concentration to perform the audit procedures and explore the fraud and inherent risks.

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