Pressure, Dysfunctional Behavior, Fraud Detection and Role of Information Technology in the Audit Process

Muhammad Umar¹, Shinta Megawati Sitorus², Rika Lusiana Surya³, Elvia R. Shauki⁴, and Vera Diyanti⁵

Abstract

This study examines the effect of information technology and pressure such as time budget and task complexity on dysfunctional audit behavior. This study tests whether dysfunctional audit behavior affects fraud detection. Data were gathered from 81 auditors in Jakarta and were analyzed using structure equation model (SEM). The results explain that pressure (time budget and complexity task) have some impacts on dysfunctional audit behavior while information technology does not affect dysfunctional audit behavior. These results also indicate that dysfunctional audit behavior has an adverse effect on fraud detection. Job-related stress framework explains the conditions that make stress (stressors) will affect to individual psychology, physics, and behavior (strains) and make some result (outcome). Pressure (time budget and complexity task) is the condition that makes both positive and negative effect on individual behavior. Pressure can make individuals behave dysfunctional or motivate them to give their best shot even though their work uses a lot of energy and mind to solve the problems. Raising dysfunctional audit behavior will reduce auditor's ability to identify material misstatement in the financial statement.

JEL Classification: G38, M42, L51.

Keywords: Dysfunctional audit behavior, fraud detection, information technology, task complexity, and time budget pressure.

¹ University of Indonesia, Indonesia.

² University of Indonesia, Indonesia.

³ University of Indonesia, Indonesia.

⁴ University of Indonesia, Indonesia.

⁵ University of Indonesia, Indonesia.

1. Introduction

Fraud is a problematic phenomenon in the world which has a lot of effects to economic sectors (Bhasin, 2013). A survey from PriceWaterhouseCoopers in 2009 revealed that 30% of all of the companies had faced criminalization economic in past 12 months with a huge loss in business activity (Gullkvist and Jokipii, 2013).

Some fraud cases were conducted by companies such as Enron, Parmalat, Maxwell, Flowtex case, Vivendi, and Baan. This cases were controversial and affect auditor profession because of audit failure (Bollen, Mertens, & Meuwissen, 2005; Hassink et al., 2009). Auditor is an important profession within society since they provide an appraisal toward companies' financial statement (Hassink et al., 2009). Nevertheless, auditor behavior gets a lot of attention from society because of audit failure (Baldacchino et al., 2016).

Audit failure may be caused by dysfunctional behavior from auditors. This behavior happens while auditors are doing their work and make them hard to identify material misstatement in client financial statement (Nor, 2011; Baldacchino et al., 2016). The aim of this research is to examine the effect of dysfunctional audit behavior toward auditor's ability in fraud detection. Also, this research aims to derive empirical results on the effect of pressure such as time budget and task complexity and also want to test information technology on dysfunctional audit behaviors.

Dysfunctional audit behavior can reduce audit quality directly and indirectly. Reducing audit quality directly is such as insufficient gathering audit evidence, changing audit procedure and premature sign-off (Alderman and Deitrick, 1982; Svanberg and Ohman, 2016). On the other hand, audit behavior which has an indirect effect on reducing audit quality is under-reporting time.

There are many factors that influence dysfunctional audit behavior. Job-related stress frameworks explain that pressure such as time budget and complex task can change individual's behavior. Time budget pressure is one of many factors. Time budget pressure occurs when auditors have time limitation in conducting audit program. The time limitation is given by accounting firm in doing audit procedure (McNair, 1991).

Another factor is task complexity. This factor can decrease the quality of decision-making and spend more time in decision making (Chen et al., 2015). Task complexity is auditor's perception related to a task performed with ability limitation, memory limitation, and limitation of analyzing problems (Jamilah, 2007). Task complexity may cause auditors to commit disadvantage behaviors because of raising workload so that they cannot provide high-quality audit assessment (Yuen et al., 2013).

Information technology has a significant effect toward audit planning, audit process, audit assessment and audit documentation. Dysfunctional behavior may reduce caused by high technology which makes auditors improve their performance in understanding client's key business (Bierstaket *et al.*, 2001).

Based on the explanation above, this study observes the dysfunctional behavior and fraud detection topics. Detection fraud variable is added in this research, and it will be the contribution of this study. The argument is because dysfunctional audit behavior has some effect on the audit quality (Andreas, 2016) and the ability of the auditors in fraud detection. Audit quality has a close relationship with an ability of auditor to find and report any fraud in client's accounting system (DeAngelo, 1981).

Related to job-related stress literature, this study extends a research from Mcnamara and Liyanarachchi (2008) who examined the relationship between time budget pressure (stressor) and dysfunctional behavior (strain) in identifying organizational stress literature. This study adds fraud detection to provide the whole description of job-related stress that consists of stressor, strain, and outcome.

By surveying the auditors who work in public accounting firm in Jakarta, as a capital city Jakarta was chosen because Jakarta has the most widely public accounting firms in Indonesia.

Therefore, this study applies Structural Equation Model (SEM) since measurement of endogen and exogen variable is created by several indicator variables or factor/construct (as proposed by Ghozali, 2009).

In the second part, this study discusses literature review and hypothesis development. In third part and fourth part, it talks about research method and result. Fifth and sixth part will be talking about discussion and summary.

2. Literature Review

2.1 Job-Related Stress Model

Cooper et al. (2001) argue that there are three parts of job-related stress concept. They are stressors, strains, and outcome. Stressors are the conditions that make stress. Stressor will affect to individual's psychology, physics, and behavior (strains) and make some result (outcome). Caplan (1975) said that work pressure refers to characteristics of the work environment and threat individual behavior (George and Zakkarya, 2015).

There are various stressors in auditor's work environment. Time budget pressure situation is a model of work stress and resembles the core relationship identified in the organizational stress literature (Mcnamara and Liyanarachchi, 2008). Besides, another factor of stress occurs when auditors have a variety of problems due to the complexity of tasks and the changing of the work environment (Liu and Li, 2012). Job complexity is associated with stressors that comprise an individual's job or called "task content" (O'Driscoll and Cooper, 2002). Complexity and pressure are the causes of stress received by auditors and have some effects on individual behavior. Such pressure may lead to dysfunctional behavior by auditors (Silaban, 2009).

Dysfunctional behaviors have a relationship on auditor's ability to detect fraud. This behaviour is consistent with the job-related stress concept from Cooper et al. (2001) as described by Mcnamara and Liyanarachchi (2008) who describes that one of the causes of stress (stressors) is the pressure. The impact is, there has a potentially a dysfunctional behavior of the auditors (strains) so that it can affect the ability of the audit in working as the output (outcome).

2.2 Stress Factors and Dysfunctional Audit Behavior

Time budget pressure is time constraints that are arising or may arise from the limited resources (time) allocated for the performance of audit tasks (DeZoort and Lord 1997). This constraint may give pressure for auditors because of the time that is given by the public accounting firm to complete the audit task, and these have some impact to declining the quality of decisions made by auditors (Svanstrom, 2015)

The auditors can respond pressure in two ways; either in functional behavior or dysfunctional behavior. Auditors who behave functionally tends to provide extra energy to complete the task and charge the audit cost for the performance. However, if the auditors behave dysfunctionally, the quality of the audit will decrease either it directly or indirectly. (McNamara and Liyanarachchi, 2008).

The dysfunctional behavior performed by the auditor are such as reducing or replacing some audit procedures (Lopez and Peters, 2011) and ineffective collection of audit evidence (Svanstrom, 2015). Some researchers were conducted to examine the relationship between the time budget pressures on audit quality and underreporting time. Utary (2014) argue that if the time budget is hard to achieve, the dysfunctional audit behavior will increase.

Coram et al. (2004) use the experimental method with a sample of 103 senior auditors. They found that auditors typically tend to perform dysfunction behavior when the time budget pressures come in. The dysfunctional behavior increases when risks perceptions of misstatement are small. Therefore the hypothesis is proposed as follow:

H1: Time budget pressures have a positive impact on the irregularities of audit behavior.

Another stress factor in the workplace is the complexity of the task. The task complexity leads to difficulties in the audit process when the auditor is confronted with this situation. So that the quality of decisions is also small if they evaluate much information rather than evaluating few information (Chan et al., 2015). Bonner (1994) reveals three reasons for the importance of task complexity in the audit environment. First, complexity task has an impact on the auditor's performance. Second, current decisions and training can enhance understanding because of conducting a variety of works. Third, understanding complex tasks can help management to find the right decision between audit staff and audit assignments (Chung and Monroe, 1998).

Benford (2000) notes that the complexity of audit tasks can force decision maker's mentality. The complexity of the task can increase the workload so that it can reduce the quality of the decision. Therefore, the higher the level of task complexity will affect to the workload that allows the auditor to perform dysfunctional because the auditor is difficult to provide an audit assessment (Yuen et al., 2013). Thus, the hypothesis is proposed as follows:

H2: The complexity of the task has a positive impact on the dysfunctional audit behavior.

2.3 Information Technology and Dysfunctional Audit Behavior

In this era, technology has a major role in the audit process. The digital age forces auditors to better understand and learn about sophisticated information technology. According to ISA 315, auditors need to gain their understanding of information technology and control systems in conducting audits (IAASB, 2009).

Technology has changed the audit process on a large scale because the auditor will use software as a tool to collect electronic evidence. It will be increasingly effective and efficient. It will reduce pressures because technology facilitates the audit work in the planning process, field works, and reporting. (Bierstaker et al., 2001).

Basically, information technology is a tool to make the auditor job easier. It will be more efficient, and the workload of the auditor will be reduced (Eining et al., 1997; Zakaria et al., 2013). Reduced pressure due to the use of technology makes auditors easier in the audit process. Thus, dysfunctional behavior that reduces audit quality may decline as technology makes the audit process more efficient and effective. Therefore, the hypothesis is:

H3: Information technology has negative effects on dysfunctional audit behavior.

2.4 The effect of dysfunctional audit behavior on the auditor's ability to detect fraud

Auditors often perform such as dysfunctional behavior in doing audit process. The dysfunctional audit behavior is an auditor's action or behavior when conducting audit programs that directly and indirectly mitigate the quality of the audit (Donelly et al., 2011; Paino et al., 2011).

The effect of reducing audit quality will reduce the auditor's ability to detect fraud. It is due to audit quality and fraud detection have a close relationship. Audit quality is measured by auditor's ability to detect, report and eliminate material misstatement in client accounting system.

H4: Dysfunctional audit behavior has a negative effect on auditor's ability to detect fraud.

3. Research Methodology

3.1 Overview

This study applies quantitative method with sending online questionnaire survey. Data was collected from external auditors who work in Jakarta because the number of auditors located in this

city more representative and also readily available for researchers. The auditor who involved in the general audit of financial statements were selected because they are assumed to have the potential related to the research variables.

This study initially used the pilot study to PPIA student of University of Indonesia year of 2016 to test the feasibility form of a question on our questionnaire. Furthermore, the questionnaire was sent out by e-mail contains two attachments to the auditor in 77 KAP located in the city of Jakarta. The rest amount of surveys were sent out by continuous network or chains of relationship from friends to friends by social media. Finally, this study received 81 questionnaires to analyse the data. Details of demographics are presented in Table 1.

Table 1
Socio-demographic Characteristics of the Total Sample and Regional Sub-samples

Description		Total N=81	%	
			58,09	
Gender	Men	43		
	Women	38	46,91	
Education Background	Diploma	1	1,23%	
•	Bachelor degree /Diploma 4	68	83,95%	
	Master degree	8	9,87%	
	Doctorate	4	4,95%	
Position	Junior	54	66,68%	
	Senior	20	24,69%	
	Supervisor	3	3,70%	
	Managers	1	1,23%	
	Partner	3	3,70%	
Type of Public	Non-Affiliate to Foreign Public	35	43,29%	
Accounting Firm	accounting firm			
	Affiliate to Foreign Public accounting firm	46	56,79%	

3.2 Data Analysis

Structural Equation Model (SEM) with AMOS software to analyze the data. In the analysis of Structural Equation Model variables can be distinguished into a latent variable (exogenous variables and endogenous variables) and observed variable. Time budget pressure, task complexity, and information technology are the exogenous latent variables, for the endogenous latent variables there is a dysfunctional auditor behavior, and fraud detection.

Measurement of exogenous variable such as time budget pressure was adopted from Pierce and Sweeney (2004). Measurement of complexity task was adopted and modified from Maynard and Hakel (2009), and information technology was adopted and modified from Utary (2015). Measurement Endogen variable such as dysfunctional audit behavior was adopted from Pierce and Sweeney (2004) while fraud detection was adopted from Fullerton and Durtschi (2004). Details of measurement are presented in Table 2.

All items of the questions are measured using the Likert interval scale 1 to 4. The time budget pressure divided into four observed variables measured using the Likert interval scale, 1 for never, 2 for sometimes, 3 for often and 4 for always. There are four observed variables for task complexity and measured using the Likert interval scale, 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree. Information technology has two observed variables measured using the Likert interval scale, 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree.

There are 13 observed variables for dysfunctional auditor behavior and measured using the Likert interval scale, 1 for never, 2 for sometimes, 3 for often and 4 for always. Fraud detection contained seven observed variables and measured using the Likert interval scale, 1 for no extending the search, 2 for slightly extending the search, 3 for more extending the search, and 4 for much more

extending the search. There are seven steps that must be followed on Structural Equation Model (SEM) which is outlined as follows: (1) development of concept-based model and theory; (2) construct the path diagram; (3) path diagram converted to structural model; (4) input matrix selected; (5) model initial estimation and evaluation of *Goodness of Fit*; (6) estimates between model and comparator indicator; and (7) model interpretation.

Table 2 - Measurement of variables

Variables	Indicator	
Time Budget	Adopted from Pierce and Sweeney (2004) and Silaban (2009).	TBP3
Pressure	1. The auditor perceives the audit time budget as an obstacle to the	
	implementation or completion of certain audit procedures.	
	2. Auditor perceives the implementation or completion of certain audit	TBP4
	procedures within the audit budget time limit is hard to accomplish.	
	3. Auditor perceives the audit time budget for the implementation of a	TDD5
	particular audit procedure is insufficient.	TBP5
	4. Auditor perceives audit time budget for the implementation of certain audit	TDD
T1-	procedures is very tight.	TBP6
Task	Adopted and modified from Maynard and Hakel (2009).	OTO
Complexity	1. The task needs a lot of thought and ability to solve the problems.	CT2
	2. The task is challenging and demanding.	CT4
	3. Motivated to give the best performance on the task. 4. Task requires a lot of effort into assuing an with the best receible callution.	CT4
Information	4. Task requires a lot of effort into coming up with the best possible solution.	CT7
Information	Adopted and modified from Utary (2015)	IT1
Technology	1. The ability to use the software in performing audit tasks is important to the auditor.	IT1
	2. Team members who understand in technology will help (important for	IT2
	auditors) in performing audit tasks.	112
Dysfunctional	Adopted by Pierce and Sweeney (2004) and Silaban (2009).	
Audit	1. Premature sign off of audit procedures.	DAB1
Behaviour.	 Making external reviews of client documents. 	DAB2
Benavioar.	3. Testing of some sample items.	DAB3
	4. The auditor does not extend the scope of testing when detects a	DAB4
	questionable post or account.	DAB5
	5. Receive short client explanations.	DAB6
	6. The auditor does not investigate the suitability of the client's accounting	21120
	treatment.	DAB7
	7. Reduces audit work from audit program.	DAB8
	8. Changing or replacing audit procedures.	DAB9
	9. Relying on client work.	DAB10
	10. Reduced audit evidence documentation.	DAB11
	11. Auditor reports a shorter audit time than the actual time.	DAB12
	12. Under report time by working on personal time.	DAB13
	13. Redirecting audit times for specific clients to other clients.	
Fraud Detection	Adopted from Fullerton and Durtschi (2004).	
	1. An unexpected change in the firm's external auditors.	DF4
	2. The controller was making a lot of adjusting entries the week before the	DF5
	external auditors arrived.	
	3. There was a significant adjustment to correct the inventory account after the	
	year-end physical count.	DF6
	4. There was an unusual number of receivables that were written off.	DF7
	5. Miscellaneous administrative expenses increased about 40 percent for the	
	year, with a corresponding drop in sales.	DF8
	6. The marketing director has a weak explanation for why advertising costs	
	have almost doubled in the past year.	DF9
	7. The gross margin in the last quarter dropped about 20 percent.	·
		DF10

4. Results

4.1 Analysing Structure Equation Model

Normality test and multicollinearity test were conducted before analyzing the effect of all variables. Based on our observation in assessment of normality from AMOS output, the value of critical ratio skewness (C.R) and kurtosis in our data have a higher score than \pm 2.58. It explains that our data is standard in distribution in univariate or multivariate. Afterward, in a sample of correlation, there is no variable which has a value higher than 0.90. It concludes that there is no multicolinierity in our data or no perfect correlation in independent variables. Thus, our data is fit to analyzing the variables.

4.2 Confirmatory Factors Analysis

The high value of factor loading concludes convergence, standardized loading estimate has to be more than 0.5. In our first SEM model, some of the indicator variables have factor loading value under 0.5. Thus this study drops these indicator variables which are under 0.5. Table 3 shows factor loading from observed variables that can be used to measure exogenous and endogenous variables. Loading factor for an observed variable is more than 0.5.

Table 3 - Loading Factor Score

Indicator	N	Loading Factors
Time Budget Pressure		
TBP3	81	0,627
TBP4	81	0,734
TBP5	81	0,621
TBP6.	81	0,547
Complexity Task		
CT2	81	0,604
CT3	81	0,652
CT4	81	0,525
CT7.	81	0,698
Information Technology		
IT1		
IT2	81	0,833
Dysfunctional Audit Behavior	81	0,802
DAB1		
DAB2		
DAB3	81	0,743
DAB4	81	0,801
DAB5	81	0,646
DAB6	81	0,736
DAB7	81	0,669
DAB8	81	0,807
DAB 9	81	0,818
DAB10	81	0,716
DAB 11	81	0,837
DAB12	81	0,873
DAB 13	81	0,636
Fraud Detection	81	0,584
DF4	81	0,569
DF5		
DF6	81	0,645
DF7	81	0,836
DF8	81	0,752
DF9	81	0,793
DF10	81	0,841
	81	0,726
	81	0,710

Notes:

The requirement for standardized loading estimate is more than 0.5 to conclude convergence. Factor loading value under 0.5 means that the indicator has to be dropped from measurement indicator.

Source: AMOS output

Table 4 explains the result of the model. The model was not fit in the first test, it modified the model with seeing modification indices. Covariance line in error of the observed variable was given as based on the suggestion from modification indices. Subsequently, a value which meets the requirement of fit model was received. After modification, the value of chi-square is few, and the probability is more than significant level (0.05). RMSEA value is fewer than 0.08, and CFI value is more than 0.90. It means that our model is fit and it can be used to predict the effect of exogenous variable on endogenous variables.

Table 4 - Model Fit

Model per scale	X^2	df	P	X^2/df	RMSEA	CFI
	227,785	119	0,000	1,914	0,107	0,694
Exogen Variable Before Modification Exogen Variable After Modification	34, 877	32	0,333	1,90	0,034	0,986
Endogen Variable Before Modification	392,475	229	0,000	1,714	0,094	0,853
Endogen Variable After Modification	208,686	177	0.052	1.179	0,047	0,97
SEM Before Modification	651,281	461	0,000	1,387	0,070	0,968
SEM After Modification	439,537	402	0,095	1.093	0,034	0,971

Notes:

 X^2 : Chi-square is to test whether the population variance that is estimated equal to the sample covariance. (The value must be a few); Df: degree of freedom; P: Probability is test of significance to the difference of data covariance matrix with estimated covariance matrix (Value ≥ 0.05); X^2/df : Chi-square divided degree of freedom; RMSEA: The Root Mean Square Error of Approximation (0.08 \geq Value); CFI: Comparative Fit Index is test of model feasibility (Value ≥ 0.94).

Source: AMOS output

4.2 Estimation Parameter value

Table 5 - Result of Structure Equation model

	i ubic c	d itesuit of Sti	ucture Equ	uution mou		
Variabel	Exp.	Coefficient	S.E	C.R	Prob	
Relationship						
DAB ← TBP	+	0,257	0,156	1,914	0,056	*
DAB ← C T	+	-0,244	0,169	-1,712	0,087	*
DAB ← I T	-	-0,052	0,144	-0,405	0,685	
$\mathbf{DF} \leftarrow \mathbf{DAB}$	-	-0,325	0,108	-2,390	0,017	**

^{***} Significance at 1%. ** Significance at 5%, * Significance at 10%

Notes

DAB: Dysfunctional Audit Behavior; **TBP:** Time Budget Pressure; **CT:** Complexity Task; **IT:** Information Technology; **DF:** Fraud Detection;

Source: AMOS output

Table 5 explains that three paths in equation model are significant. They are time budget pressure to dysfunctional audit behavior, task complexity to dysfunctional audit behavior, and dysfunctional audit behavior to fraud detection. Meanwhile, a path is not significant. It is information technology to dysfunctional audit behavior

Time budget pressure is significantly positive to dysfunctional audit behavior with

probability values is 0,056. It is fewer than significant level 0.10 (\leq 0.10). The positive effect can be seen from the coefficient value which is 0,257. Complexity task is significantly detrimental to dysfunctional audit behavior with probability values is 0,087. It is fewer than significant level 0.10 (\leq 0.10). The adverse effect can be seen from the coefficient value which is -0,244.

Furthermore, dysfunctional audit behavior is significantly negative with probability values is 0,017. It is fewer than significantly level 0.05 (\leq 0,05). The adverse effect can be seen from the coefficient value which is -0,325. Nevertheless, information technology is not significant to dysfunctional audit behavior with probability is 0,685. It is far higher than significant level 0,05 (\leq 0,05).

5. Discussion

First Hypothesis (H1) is accepted, and it is in line with our prediction. This result support research of McNamara and Liyanarachchi (2008), Yuen et al. (2013), Utary (2014), and Svanström (2015).

Audit works must meet the deadline. However, time limitation from public accounting firm can potentially make work pressure toward auditor to finish the tasks given to them and can affect their performance (Yuen et al., 2013). Time budget pressure is increasing because of the deadline so that it can reduce auditor control environment (McNair, 1991; Utary, 2014). Pressure also make auditor be ineffectively in gathering audit evidence. As a result, it is debilitating the qualities of auditor decision (Gundry & Liyanarachchi, 2007; Svanström, 2015).

In Job-Related stress, one major of stressor is an obligation to work under time pressure in the particular time frame for certain tasks to meet the deadline. It has been linked to depression, anxiety, and high level of strain (Westman and Eden, 1992; O'driscoll and Cooper, 2002). Time budget pressure can make auditors behave dysfunctionally so that can reduce the quality of audit (McNamara and Liyanarachchi, 2008) directly such as early sign off of audit work without gathering sufficient evidence and completion of the procedure. Moreover, the indirectly effect of dysfunctional behavior is underreporting time. Underreporting time lead to weak personal decision, obscures the need for budget revision, and result in recognize time pressure on future audit (Donelly et al., 2003)

Second hypothesis (H2) is accepted but in different sign with our prediction. This research is not supporting research of Yuen et al. (2013). It might be junior auditor (66.68% respondent in this research) work based on audit procedure that is given to them. Changing and replacing the procedure is not their authority. They do not brave enough to change it. Junior auditor tends to listen to the instructions from senior above their position so that audit report could be useful and efficient (Gold-Noteberg et al., 2006).

Job-Related stress model explained that the individual's psychological, physical, and behavioral responses to stressors (Cooper et al., 2001). Job characteristic is one of the stressors connected with the performance of particular task that consist of an individual's job includes job complexity (O'Driscoll and Cooper, 2002). When facing task complexity condition as a part stressor, the auditor could behave dysfunctional as a response of stressor functional or dysfunctionally. Auditors perceive task complexity as a challenging task, and it might motivate them to give their best performance rather than behave dysfunctionally. They try to show their performance eventhough they have to spend more energy and mind to finish their work (Gardner, 1990; Scott et al., 1988; Maynard and Hakel, 1997).

For the third hypothesis, our prediction is not accepted. Technology such as the use of software will reduce obstacles in audit process so that the auditor will not behave dysfunctionally because is it is not needed. Audit risk and client business risk will reduce as well because of technology information (Lee et al., 2015). Technology can make audit work to be effective and efficient (Bierstaker et al., 2001). However, there is a possibility that audit tools or software are not available or not maximally utilized so that the benefits of audit tools and software become weak. The technology that was initially expected to help the auditor reduce the dysfunctional behavior becomes uninvolved because the technology or software is only used in a limited way in daily practice

(Vasarhelyi and Romero, 2014)

The fourth hypothesis is in line with our prediction. The reason is dysfunctional audit behavior happens when auditors are doing their job. Dysfunctional audit behavior reduces auditor's ability to identify material misstatement in financial statement which is being audit (Nor, 2011; Baldacchino et al., 2016). High dysfunctional behavior will decrease audit quality so that it will affect to auditor ability in fraud detection. Fraud detection and audit quality have a healthy relationship. DeAngelo (1981) define audit quality as auditor ability to find and report fraud in client accounting system. Overall, these results consistent with the job-related stress concept Cooper et al. (2001) as describing Mcnamara and Liyanarachchi (2008) which describes the cause of stress (stressors) such as time budget pressure and task complexity. The impact is, the potentially functional or dysfunctional behavior of the auditors (strains) so that can affect the ability of the audit in working as its output (outcome).

The implication of this research is public accounting firm has to arrange budget properly, so pressure such as time budget can be reduced. Auditors always face the complexity of the task in their job when the pressure such the time budget often occurred in audit proses. Job relation stress model explains that pressure could reduce the performance of auditor so that it potentially makes auditor to behave dysfunctionally. Those pressure could make auditor take instant way to finish audit program such as changing audit procedure, ignore audit procedure, early sign off and under reporting time. Pressure could reduce audit quality so that, when auditor behaves dysfunctionally, they ability to detect fraud in client financial statement will reduce.

6. Conclusion

This research is expected to extend research related to the dysfunctional audit behavior and fraud detection. Empirical result shows that time budget pressure has a positive effect to dysfunctional audit behavior. Moreover, task complexity have an adverse effect to dysfunctional audit behavior meanwhile information technology does not affect dysfunctional audit behavior. Furthermore, dysfunctional audit behavior has an adverse effect to detection fraud.

This research has some limitations. Use of questionnaire may have potential bias because the questionnaire is sent through email and social media which everyone can fill it although they are not an auditor. It will affect the result. On the other side, respond to the questionnaire is quite small, so that it is hard to generalize the results. Some questions in an observed variable to measure complexity task have some limitation. This study did not make differences between high complexity and low complexity in the task. For further research, using another question to measure complexity task is recommended. Further research can specifically distinguish high task complexity and small task complexity.

List of References

- Andreas. 2016. Interaction between Time Budget Pressure and Professional Commitment towards Underreporting of Time Behavior. <u>Procedia Social and Behavioral Sciences</u>, Vol. 219, 31 May 2016, Pages 91-98 https://doi.org/10.1016/j.sbspro.2016.04.047
- Baldacchino, Peter J., Norbert Tabone, Justine Agius, and Frank Bezzina., 2016. Organizational Culture, Personnel Characteristics, and Dysfunctional Audit Behavior. *Journal of Accounting Research & Audit Practices.* 15 (3) pp. 34-63.
- Benford, T.L. (2000), Determinants of Audit Performance: An Investigation of Task/ Technology Fit and Mental Workload, *Dissertation Abstracts International*, Vol. 61-08, Section A, pp. 32-41.
- Bhasin, Madan. 2013. Corporate Accounting Scandal At Satyam: A Case Study Of India's Enron. *European Journal of Business and Social Sciences*, Vol. 1, No. 12, pp 25-47.
- Bierstaker, James L., Priscilla Burnaby, and Jay Thibodeau. 2001. The impact of information technology on the audit process: an assessment of the state of the art and implications for the future. *Managerial Auditing Journal*, Vol. 16 Issue 3 pp. 159 164. https://doi.org/10.1108/02686900110385489
- Bonner, S. E. (1994). A Model of the Effects of Audit Task Complexity. *Journal of Accounting, Organizations and Society*, 19 (3), 213-234. https://doi.org/10.1016/0361-3682(94)90033-7
- Bollen, L. H. H., Mertens, G. M. H., Meuwissen, R. H. G., Van Raak, J. J. F., & Schelleman, C. 2005. Classification and analysis of major European business failures. *Maastricht: Maastricht Accounting, Auditing and Information Management Research Center*.
- Caplan, R.D. and Jones K.W. 1975. Effect of work load, role ambiguity and type a personality on anxiety, depression, and heart race. *Journal of applied psychology*. 60: 713-719 https://doi.org/10.1037/0021-9010.60.6.713
- Chan, Siew H., Qian Song, and Lee J. Yao. 2015. The moderating roles of subjective (perceived) and objective task complexity in system use and performance. *Computers in Human Behavior 51*. Pp. 393–402 https://doi.org/10.1016/j.chb.2015.04.059
- Cooper, C.L. (1986), "Job distress: recent research and the emerging role of the clinical occupational psychologist", *Bulletin of the British Psychological Society*, Vol. 39, pp. 325-331.
- Chung, J. & Monroe, G. (1998). The effects of gender and task complexity on audit judgment. *Perth, Australia: Edith Cowan University*.
- Coram, P., Juliana, Ng, J., and Woodliff, D. 2004. A Survey of Time Budget Pressure and Reduced Audit Quality among Australian Auditors. *Australian Accounting Review*, Vol. 13 No. 1, pp. 38-45.
- Cooper, C.L. ., P.J. Dewe., and M.P. O'Driscoll. 2001. Organizational Stress: A Review and Critique of Theory, Research, and Applications. Sage Publications.
- DeAngelo, Linda Elizabeth. 1981. Auditor size and audit quality. *Journal of Accounting and Economics*. Volume 3, Issue 3, December. Pp. 183-199. https://doi.org/10.1016/0165-4101(81)90002-1
- DeZoort, F. T, and Lord, A. T. 1997. A Review and Synthesis of Pressure Effects Research In Accounting. *Journal of Accounting Literature*. Vol. 16. pp. 28-65.
- Donnely, P. D., Quirin J. J., and O'Bryan D. 2003. Auditor Acceptance of Dysfunctional Audit Behavior: An Explanatory Model Using Auditor's Personal Caracteristics. *Behavioral Research In Accounting*, Vol. 15. pp. 87-110. https://doi.org/10.2308/bria.2003.15.1.87
- Fullerton, Rosemary R., and Durtschi, Cindy. (2004). The Effect of Professional Skepticism on The Fraud Detection Skills of Internal Auditors. *Working Paper Series*. https://doi.org/10.2139/ssrn.617062
- Gardner, D. G. 1990. Task complexity effects on non-task related movements; a test of activation theory. *Organization Behavior and Human Decision Processes*, 45, 209-231 https://doi.org/10.1016/0749-5978(90)90012-X
- George, Elizabeth and Zakkariya K.A. 2015. Job related stress and job satisfaction: a comparative study among bank employees. *Journal of Management Development*, Vol. 34 Iss 3 pp. 316 329
- Ghozali, I. 2009. Model Persamaan Struktual: Konsep Aplikasi dengan ProgramAmos Ver. 5.0, Semarang. *Badan Penerbit Universitas Diponegoro*.
- Gold-Noteberg, A.H., Hunton, J.E. and Gomaa, M.I. (2006), "The impact on client and audit gender on auditor judgment", *ERIM Report Series Research in Management, Erasmus Research Institute of Management*, Rotterdam.
- <u>Gullkvist</u>, Benita and <u>Annukka Jokipii</u>., 2013. Perceived importance of red flags across fraud types. <u>Critical Perspectives on Accounting</u>. Vol. 24, pp. 44–61. https://doi.org/10.1016/j.cpa.2012.01.004

Gundry, L. C. & Liyanarachchi, G. A. 2007. Time budget pressure, auditors' personality type, and the incidence of reduced audit quality practices. *Pacific Accounting Review*, Vol. 19, No. 2, pp. 125–52. https://doi.org/10.1108/01140580710819898

- Goldman, A. and Barlev, B. 1974. The auditor-firm conflict of interest: its implications for independence. *The Accounting Review*, Vol. 4, pp. 707-718.
- Hassink, Harold F.D., <u>Laury H. Bollen'</u>, <u>Roger H.G. Meuwissen</u>, <u>Meinderd J. de Vries</u>., 2009. Corporate fraud and the audit expectations gap: A study among business managers. <u>Journal of International Accounting, Auditing and Taxation</u>. Volume 18, 2009, pp. 85–100. https://doi.org/10.1016/j.intaccaudtax.2009.05.003
- International Auditing and Assurance Standards Board (IAASB). 2009.
- Jamilah, s., Z. Fanani, G. Chandrarin. 2007. Pengaruh gender, tekanan ketaatan, dan kompleksitas tugas terhadap audit judgment. Simposium Nasional Akuntansi X
- Lee, Lorraine., whitworth, James., and hermanson, Susan. 2015. The Effects of Information Technology Innovativeness on Audit Efficiencies. *Review of Business Information Systems (RBIS)*, [S.l.], v. 19, n. 1, p. 25-38,
- Liu, Peng and Zhizhong Li. 2012. Task complexity: A review and conceptualization framework. *International Journal of Industrial Ergonomics*. 42 (2012) 553-568. https://doi.org/10.1016/j.ergon.2012.09.001
- López, D.M. and Peters, G.F. 2011. Auditor workload compression and busy season auditor switching. *Accounting Horizons*, Vol. 25 No. 2, pp. 357-380. https://doi.org/10.2308/acch-10026
- Lord, A. T., and DeZoort, F.T. 2001. The Impact of Commitment and Moral Reasoning on Auditor's Responses to Social Influence Pressure. *Accounting Organizations and Society*. Vol. 26. pp. 215-235. https://doi.org/10.1016/S0361-3682(00)00022-2
- Maynard, Douglas C. & Milton D. Hakel., 1997. Effects of Objective and Subjective Task Complexity on Performance. *Human Performance*, 10:4, pp. 303-330. https://doi.org/10.1207/s15327043hup1004_1
- McNamara, Shaun M., and Gregory A. Liyanarachchi. 2008. Time budget pressure and auditor dysfunctional behaviour within an occupational stress model. *Accountancy Business and the Public Interest*, Vol. 7. No. 1
- McNair, C.J. 1991. Proper Compromises: The Management Control Dilemma in Public Accounting and Its Impact on Auditor Behavior. *Accounting, Organizations and Society*. Vol. 16 No. 7. pp. 635-653. https://doi.org/10.1016/0361-3682(91)90017-9
- Nor, M N. 2011. Auditor Stress: Antecedents and Relationships to Audit Quality. Edith Cowan University.
- O'driscoll, Michael P and Cooper, C.L. 2002. Job-related stress and burnout. *In P. Warr (Ed.), Psychology at Work (pp. 203-228). London, England: Penguin Group.*
- Paino, H., Thani, A., Idris, S. I. 2011. Attitudes Toward Dysfunctional Audit Behavior: The Effect of Budget Emphasi, Leadership Behavior, and Effectiveness of Audit Review. *Journal of Modern Accounting and Auditing*. Vol. 7, No. 12, pp. 1344-1351.
- Paino, Halil., Malcolm Smith., and Zubaidah Ismail, 2012. Auditor acceptance of dysfunctional behaviour. *Journal of Applied Accounting Research*, Vol. 13 Iss 1 pp. 37 – 55. https://doi.org/10.1108/09675421211231907
- Pierce, B, and Sweeney, B. 2004, "Cost-Quality Conflict in Audit Firms: An Empirical Investigation". *Europan Accounting Review*. Vol. 13. No. 1. pp. 415-441. https://doi.org/10.1080/0963818042000216794
- Scott, W.E., Fahr, J., and Podsakoff, P. M. 1998. The effects of "intrinsic" and extrinsic" reinforcement contingencies on task behavior. *Organizational Behavior and Human Decision Processes*, 41, 405-425 https://doi.org/10.1016/0749-5978(88)90037-4
- Silaban, Adanan. 2009. Perilaku Disfungsional Auditor Dalam Pelaksanaan Program Audit. Working paper. Universitas Diponegoro.
- Svanberg, Jan and Peter Öhman. 2016. The effects of time budget pressure, organisational-professional conflict, and organisational commitment on dysfunctional auditor behaviour. *Int. J. Accounting, Auditing and Performance Evaluation, Vol. 12, No. 2.*
- Svanström, Tobias. 2015. Time Pressure, Training Activities and Dysfunctional Auditor Behaviour: Evidence from Small Audit Firms. *International Journal of Auditing*. 20: 42–51 (2016) https://doi.org/10.1111/ijau.12054
- Utary, anis Rachma. 2014. Effect of Time Budget Pressure on Dysfunctional Audit and Audit Quality, Information Technology as Moderator. *International Journal of Economic Research*. 11(3), July-Dec. 2014: 689-698.

- Vasarhelyi, Miklos A. and Silvia Romero. 2014 Technology in audit engagements: a case study. *Managerial Auditing Journal* Vol. 29 No. 4, 2014 pp. 350-365 https://doi.org/10.1108/MAJ-06-2013-0881
- Yuen, Desmond C.Y., Philip K.F. Law, Chan Lu and Jie Qi Guan. 2013. Dysfunctional auditing behaviour: empirical evidence on auditors' behaviour in Macau. *International Journal of Accounting & Information Management*, Vol. 21 Iss 3 pp. 209 226. https://doi.org/10.1108/IJAIM-12-2012-0075
- Zakaria, Nor Balkish, Nurhidayah Yahya, and Kalsom Salleh. 2013. Dysfunctional Behavior among Auditors: The Application of Occupational Theory. *J. Basic. Appl. Sci. Res.*, 3(9). Pp. 495-503.