

# ATTITUDES TOWARD DYSFUNCTIONAL AUDIT BEHAVIOUR: THE EFFECT OF BUDGET EMPHASIS, LEADERSHIP BEHAVIOUR, AND EFFECTIVENESS OF AUDIT REVIEW

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## ABSTRACT

*Dysfunctional Audit Behaviour (DAB) is an accepted problem, associated with decreased audit quality. This study develops and tests a theoretical model that identifies factors contributing to DAB. Budget emphasis, leadership behaviour structure and consideration, and effectiveness of audit review were examined as antecedents of attitudes toward DAB. A path analysis from a partial least square (PLS) approach was employed based on survey results from 225 Audit Managers in Malaysia. The findings produced consistent evidence in support of the theoretical model. It is not an emphasis on meeting budgets that leads to undesirable behaviour, but contextual variables, such as leadership behaviour structure and effectiveness of audit review. The study is confined to the auditing environment, and is subject to the normal limitations of survey based research. The results of the study should impact auditing procedures, hiring, training and promotion decisions, and help to minimise the occurrence and acceptance of DAB. The study was significant for the reason that there is an increased awareness by the Malaysian Institute of Accountants (MIA) as the policy makers and the Practice Review Committee (PRC) concerning the impairment of the audit quality and DAB resulting from the first PRC report.*

**Keywords:** *Dysfunctional Audit Behaviour, Budget Emphasis, Leadership Behaviour Structure and Consideration, Audit Review*

## Introduction

The panel on Audit Effectiveness, established by AICPA's Public Oversight Board to examine the issue of audit quality, gathered information from peer reviews and a survey of financial executives, internal auditors, and external auditing professionals. Their findings indicate that Dysfunctional Audit Behaviour (DAB) is a continuing concern for the auditing profession. DAB can adversely affect the ability of public accounting firms to generate revenue, complete professional quality work on a timely basis and accurately evaluate employee performance. The present study advances Malaysian auditing research by examining the specific factors that contribute to this behaviour including budget emphasis, leadership behaviours and effectiveness of audit review. In early 2007, the Malaysian Institute of Accountants (MIA) Practice Review Committee (PRC) issued the first ever Practice Review (PR) report undertaken by MIA, for the period 2003 to 2006, and highlighted some audit quality problems when judged against International Standards on Auditing, Malaysian Standards on Auditing and Companies Act 1965 requirements.

These concerns have not been ignored in the academic literature. The underlying premise of much academic research has been that DAB is a dysfunctional reaction to the environment (i.e., the control system). This behaviour can, in turn, have both direct and indirect impact on audit quality. Behaviour that directly affects audit quality include premature signing-off of audit steps without completion of the procedure (Otley and Pierce, 1995; Rhode, 1978), gathering of insufficient evidential materials (Alderman and Deitrick, 1982), processing inaccuracy (McDaniel, 1990), and the omission of audit steps (Margheim and Pany, 1986). Underreporting of audit time has also been shown to have an indirect impact on audit quality (Smith, 1995; Kelly and Margheim, 1990; Lightner, Adam and Lightner, 1982). Underreporting time leads to poor personnel decisions, obscures the need for budget revisions, and results in unrecognised time pressures on future audits (Donnelly, Bryan and Quirin, 2003).

Several academic studies have also examined the impact that time pressure has on dysfunctional behaviour (Alderman and Deitrick, 1982; Margheim and Pany, 1986; Rhode, 1978). Kelley and Margheim (1990) examined the moderating effects of the interaction between supervisor leadership

style and auditor personality. Otley and Pierce (1995) extended this work by examining the moderating effects of audit managers' leadership style on the behaviour of audit seniors. These studies suggest that an optimal supervisor-subordinate fit can help reduce dysfunctional behaviour and reactions to control systems. Prior literature has identified environmental factors (e.g. time pressure, supervisory style, etc.) that contribute to DAB. However, existing literature has not found that individual differences among auditors significantly affect DAB.

This study is both timely and significant because of the increased awareness of both the Malaysian Institute of Accountants (MIA), as policy makers, and the Practice Review Committee (PRC) concerning the impairment of audit quality and dysfunctional audit behaviour, following the first PRC Report (publicly available at the MIA website as <http://www.mia.org.my/dept/prw/circulars.htm>). The results of this study will help audit firms to understand the harmful impact of these behaviours better and to identify improved means of managing the DAB issue. This study makes a contribution to both the auditing literature and the behavioural literature with respect to the impact of organisational aspects on behaviour. As noted, in relation to the existing studies of audit quality reduction behaviour, it extends earlier studies by simultaneously examining the three different factors that contribute to DAB.

On a practical level, an understanding of the different factors associated with DAB should help audit firms in their efforts to dissuade auditors from engaging in DAB. The results of this study could impact auditing procedures, hiring, training and promotion decisions, and help minimise the occurrence and acceptance of DAB. Nevertheless, it should be noted that stronger regulation may not be the only solution to promoting better audit practice and addressing DAB in Malaysia. Thus, identifying the factors that contribute to auditors' attitudinal DAB is regarded as an important first step in ascertaining the when, why and how of the incidence of DAB (Paino, Smith and Ismail, 2010, Paino, Smith and Ismail, 2012). A theoretical model was developed that relates budget emphasis, leadership behaviour and effectiveness of audit review to auditors' attitudes toward DABs, namely superficial review of documents, accepted weak client explanations, reduced work below what was considered reasonable, failure to research an accounting principle, and premature sign-off of required audit steps.

Audit managers were asked to report their attitudes toward DAB. Using a partial least square analysis, the responses of 225 Audit Managers support the theoretical model and several of the hypothesised relationships. Results of the study suggest that leadership behaviour structure and effectiveness of audit review may have a significant impact on auditor behaviour. These results contribute to our understanding of the correlates of DAB. In addition to the environmental and control variables examined in the previous literature, these findings suggest that individual auditors may differ in their predispositions toward these behaviours. Further research in this area may assist the profession in identifying personality and individual attributes among auditors that will reduce the incidence of DAB. In addition, improved understanding of DAB can allow firms to target their risk management of DAB to those auditors most likely to have more favourable attitudes toward such behaviours.

The remainder of this paper is organised into four sections. The first section presents the theoretical development, while the second section discusses the research method including data collection and measurement. In the third section, empirical results are presented. The final section concludes with a discussion of the findings, together with recognition of limitations, and opportunities for further research.

## **Theoretical Development**

The theoretical model is presented in Figure 1 and illustrates the structural model of hypotheses for each of the factors studied. Each link in the model is labelled with its respective hypothesis (together with the proposed direction of relationship) and is discussed subsequently. The model establishes the proposed links between evaluation of performance (BE), effectiveness of audit review (ARv), consideration in leadership style (LBC) and structure in leadership style (LBS) with dysfunctional audit behaviour (DAB).

### **Direct Association to Dysfunctional Audit Behaviour (DAB)**

Generally Accepted Auditing Standards (GAAS) and International Standards on Auditing (ISA) both require a firm to maintain a quality control system and require auditors to adequately plan their audits. Several studies

have found that a strong audit methodology was associated with higher audit quality. Malone and Roberts (1996) found that auditors with stronger quality control systems were less likely to participate in dysfunctional audit behaviours. Thus, the independent variables used for this study associated with control systems are time budget emphasis, leadership structure, leadership consideration and the effectiveness of audit review in detecting one type of dysfunctional behaviour, namely premature sign-off (PMSO).

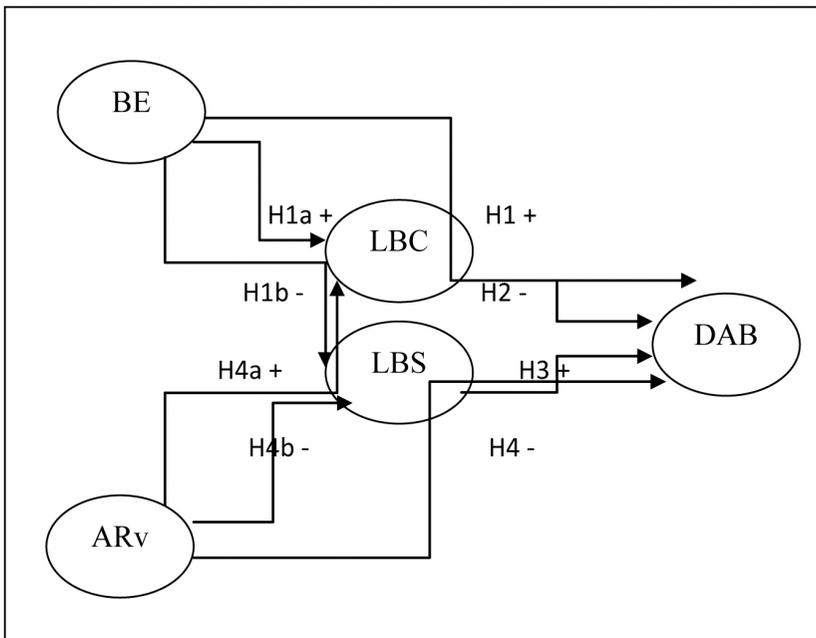


Figure 1: Theoretical Model

Budget related time pressure can occur when the budgeted amount of time is less than total available time and the auditor can respond to the pressure by completing the work in their own personal time and underreporting the amount of time spent on the audit task. Prior research examining auditor time budget pressure has generally been performed using surveys or case studies (e.g., Rhode, 1978; Kelley and Seiler, 1982; Lightner, Adams and Lightner, 1982; Alderman and Deitrick, 1982; Cook and Kelley, 1988; Rangunathan, 1991). In general, these findings indicate that audit time budget pressure has been increasing over time. In addition, these researches suggest that audit

effectiveness may be negatively affected as a result of auditors engaging in dysfunctional behaviour (such as premature sign off and underreporting of chargeable time) in order to meet their time budgets.

Prior research examining auditor time deadline pressure has generally consisted of experiments where auditors were given a task to perform and the amount of available time to complete the task was varied across subjects. For example, McDaniel (1990) found that as the time deadline pressure utilised in her study increased, auditors' job effectiveness decreased and their efficiency increased. In contrast, research by Choo (1995) suggests that as time deadline pressure increases from low to moderate levels, auditor judgment performance improves due to the reduction in the usage of non-diagnostic (i.e. irrelevant) cues. However, Choo's findings also indicate that as deadline pressure increases to higher levels, performance declines because relevant cues are also ignored.

In general, audit time budget pressure occurs when an audit firm allocates (i.e. budgets) a scarce number of audit hours to be used by auditors to complete specified audit procedures. The emphasis which the audit firm places on meeting time budgets can influence individual auditor behaviour (Alderman & Deitrick, 1982; Otley & Pierce, 1996). Time budget achievement is seen by auditors as being critical for performance evaluation (Kelley & Seiler, 1982; Otley & Pierce, 1996), and pressure to meet time budgets is one of the main causes of staff turnover. Accordingly, the following hypothesis is tested:

H1: High perceived emphasis on meeting time budgets in the evaluation of performance (BE) will be associated with an increase in dysfunctional behaviour.

Large audit firms operate using a clear hierarchical structure where the audit senior reports directly to the audit manager and the audit manager reports directly to a partner. The formal evaluation of the senior's and manager's performance is carried out by the partner. In this situation, the behaviour of the partner, who is cast in a leadership role, is expected to influence the senior's and manager's behaviour. Studies in this area (e.g., Kelley & Margheim, 1990) have measured leadership style by using two dimensions: consideration and structure.

Stogdill (1963) defined 'consideration' as "the extent to which an individual is likely to have job relationships characterised by specific action such as mutual trust, respect for subordinate's ideas, and consideration of their feelings", whereas 'structure' reflects "the extent to which an individual is likely to define his own role and those of his subordinates towards goal attainment". Control theory would suggest that, in an auditing environment, rigid application of controls is likely to lead to defensive attitudes and dysfunctional behaviours. Therefore, the following hypotheses were tested:

H2: High levels of consideration in the leadership style of partners (LBC) will be associated with low levels of dysfunctional behaviour.

H3: High levels of structure in the leadership style of partners (LBS) will be associated with high levels of dysfunctional behaviour.

Otley and Pierce (1996) reported that the firm's review procedures should be adequate to detect Premature Sign-Off (PMSO). There is a suggestion in previous studies that a manager's perception of the risk of being caught may be relevant in the decision to sign off prematurely or engage in other forms of dysfunctional behaviour. The Commission on Auditors' Responsibilities (CAR) (1978) noted that the greatest concern of auditors who engage in PMSO is the risk of discovery by their superior. The results of previous studies support a negative association between the perceived effectiveness of the audit review (ARv) in detecting PMSO and dysfunctional behaviour. Accordingly, the following hypothesis was tested:

H4: High perceived effectiveness of the audit review (ARv) in detecting PMSO will be associated with low levels of dysfunctional behaviour.

### **Indirect Association to Dysfunctional Audit Behaviour (DAB)**

Examining the interrelationships among budget emphasis (BE), effectiveness of audit review in detecting PMSO (ARv), leadership structure (LBS) and leadership consideration (LBC) can provide a further understanding on the contribution of audit firm factors to auditor behaviour. A significant development in the literature concerning the impact of budget emphasis on subordinates' attitudes was systematic examination of the impact of leadership and supervisory evaluative styles (Hopwood, 1972; Otley, 1978).

They both suggested that leadership and supervisory evaluative styles may be directly associated with subordinates' attitudes and behaviour, including job-related tension. Hopwood (1972) found that managers evaluated in a budget constrained style were more likely to be involved in dysfunctional behaviour compared to the other styles. Performance evaluation is usually undertaken to motivate subordinates to improve performance and related specifically to leadership consideration. For this reason, performance evaluation is often linked to the reward systems with the subordinates' remunerations and promotions dependent upon their supervisors' evaluations of their performance. Performance evaluations are dictated by the evaluative styles chosen and consideration used by the superiors. It is proposed and tested here that the relationship between budget emphasis (BE) and leadership behaviour consideration (LBC) is a positive one (H1a). Hopwood (1972) found that subordinates' trust in their superior was positively associated with the two criteria of 'meeting the budget' and 'concern with costs', the two items he used to measure accounting-based criteria.

In addition to leadership behaviour consideration, leadership behaviour structure (LBS) is also a likely intervening variable for the indirect relationship between budget emphasis and dysfunctional behaviour. Prior studies suggest that leadership behaviour structure is important to subordinates who are evaluated by a high budget emphasis (BE) evaluative style (Becker and Green, 1960; Brownell and Hirst, 1986). Since a high budget emphasis evaluative style links the subordinates' rewards to the achievement of their budget targets, the levels of budget targets are therefore important to them. Hence, they are likely to be interested in and want to participate in the budget setting process. Consequently, they are likely to exert greater pressure on their superiors to accord them higher budgetary participation privileges than subordinates who are evaluated by a low budget emphasis evaluative style. The proposed structural model for budget emphasis and leadership behaviour structure (for indirect association to dysfunctional behaviour) as depicted in Figure 1 however indicates that such relationships may be negative. Based on the above discussion, therefore, the following hypotheses are tested for the indirect association to dysfunctional audit behaviour:

H1a: There is a positive association between budget emphasis and leadership behaviour consideration.

H1b: There is a negative association between budget emphasis and leadership behaviour structure.

Based on the above discussion, to incorporate the indirect effect of the leadership behaviour consideration and leadership behaviour structure on the relationship between budget emphasis and dysfunctional behaviour, the following hypothesis is tested:

H1c: Budget Emphasis (BE) has an indirect effect on Dysfunctional Audit Behaviour (DB) through the Leadership Behaviour Consideration (LBC) and Leadership behaviour Structure (LBS).

There is evidence that underreporting of time is significantly influenced by the manager's requests or is perceived to approve of such behaviour (Lightner, Adam & Lightner, 1982). Pratt and Jiambalvo (1981) investigated leadership behaviour in an audit context and concluded that there was some evidence of a positive effect of LBC on audit team work and performance. Kelley and Margheim (1990) did not find evidence to support their hypothesis that leadership behaviour would exercise a moderating influence over the relationship between audit work pressure and dysfunctional behaviour, but concluded that there was some evidence of a main effect with structure on audit quality reduction behaviour.

According to Figure 1, leadership behaviour consideration (LBC) influences the effectiveness of audit review in detecting pre-mature sign off (ARv) and thus has indirect effect on dysfunctional audit behaviour. Leaders with high consideration (LBC) respect their subordinates and attempt to develop relationships with subordinates that are based upon trust and open communication (Fleishman and Harris, 1962). Such leaders are likely to encourage subordinates to actively participate during the audit process like audit review, thus, in incorporating the indirect relationship between leadership behaviour and audit review (ARv), the following hypotheses are tested:

H4a: There is a positive association between effectiveness of audit review and leadership behaviour consideration.

H4b: There is a negative association between effectiveness of audit review and leadership behaviour structure.

H4c: There is an indirect effect on effectiveness of audit review via leadership behaviour consideration and leadership behaviour structure.

## **Research Method**

### **Data Collection**

Data was collected using a survey questionnaire sent to all Audit Managers registered with Malaysian Institute of Accountants (MIA), a total of 621 auditors. Questionnaires were sent out to firms of varying size including Big 4, small firms and medium firms. Of the 621 surveys distributed, respondents returned a total of 225 usable surveys for an effective response rate of 36 percent. The average respondent was in the 35-39 year age group and had between 10 and 14 years of audit experience. Female respondents represented approximately 72 percent of the returned instruments.

### **Measures**

The variables measured in the questionnaire include budget emphasis, leadership behaviour structure, leadership behaviour consideration, effectiveness of audit review in detecting premature sign-off and attitude toward dysfunctional audit behaviour. Budget emphasis was measured by a direct question about the perceived and desired importance of budget achievement in the overall evaluation of performance. Leadership behaviour structure and leadership behaviour consideration were measured using the instruments adapted for an audit setting by Otley and Pierce (1996) and Pratt and Jiambalvo (1981), and based on Stogdill's (1963) Leader Behaviour Descriptive Questionnaire (LBDQ). This LBDQ has been used extensively to measure leadership behaviour structure and consideration. The instrument's reliability and validity have been deemed acceptable in prior research (Otley and Pierce, 1996). Effectiveness of audit review (Arv) refers to its effectiveness in detecting premature sign-off (PMSO). Subjects were asked a direct question on the effectiveness of audit review in detecting PMSO. Dysfunctional audit behaviour (DAB) was measured using five specific behaviours similar to those identified by Otley and Pierce (1996) and Kelley and Margheim (1990). Subjects were asked to indicate the frequency with which these behaviours were encountered in the previous years of audit work.

## Partial Least Square (PLS) Analysis

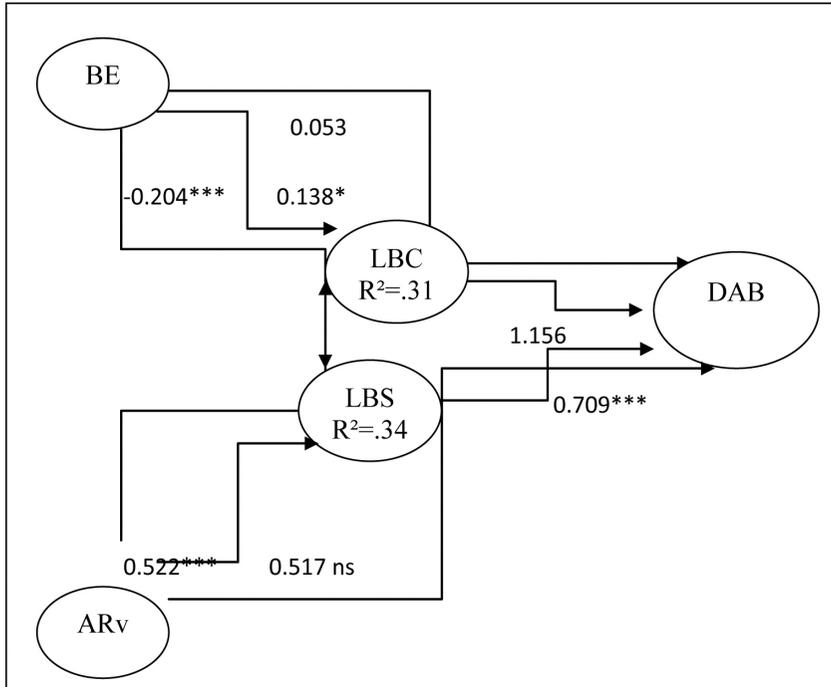
Path analysis using PLS was used to evaluate the proposed hypotheses. Path analysis, rather than moderated regression analysis (MRA) or ANOVA, was used because the theoretical model presented in this study is viewed as an antecedent framework for DAB. PLS is a constrained form of component modelling, whereas conventional structural equation modelling (SEM) analysis, such as with LISREL, can be seen as modelling with common factors. Conducting PLS analysis involves a two-step procedure: the first step is to evaluate a measurement model for each latent construct, which in practice assesses the validity and reliability of the measures; the second step is to conduct a path analysis. In PLS analysis, Chin, Marcolin and Newsted (2003) advised that the adequacy of the measures is assessed by evaluating three components; (1) the reliability of the individual items, (2) the internal consistency of the items measuring the same latent construct, and (3) the discriminant validity of the construct.

The reliability of the individual items was assessed by examining the loading of the items on their corresponding construct, where items' loadings greater than 0.4 can be considered acceptable. Cronbach Alpha is the most common method used to assess measurement reliability. The measure for internal consistency is assessed by Composite reliability (CR) with a desired value greater than 0.7. The last indicator is the average variance extracted (AVE), which refers to how much the items explain the variance of the construct. The desired value for AVE is greater than 0.5. The Cronbach Alpha for DAB is 0.72, and the AVE is 0.64 with individual item loadings ranging from 0.40 to 0.85. The Cronbach Alpha for leadership behaviour consideration is 0.91, and the AVE is 0.79. The individual item loadings ranged from 0.60 to 0.85. The Cronbach Alpha for leadership behaviour structure is 0.91, and the AVE is 0.84 with the individual item loadings ranging from 0.42 to 0.91. As effectiveness of audit review and budget emphasis each comprised a single item, their loadings were 1.00.

PLS path analysis uses similar indicators to regression analysis to interpret its results. R-square ( $R^2$ ) can have values 0-1. Higher values mean that the model explains more variance. The size of path coefficients, *beta coefficients*, refers to the strength of the relationship between independent and dependent variable. The significance of the path, *t-values*, indicates if a particular path is statistically significant.

## Empirical Results

Table 1 presents the results of the path analysis and lists each hypothesis and its corresponding path coefficient. Figurative representations of the results are also displayed in Figure 2.  $R^2$  reported for the dependent variable DAB is 0.56, 0.31 for LBC and 0.34 for LBS.



-0.193\*\*\*  
 \*  $p < 0.10$ , \*\*  $p < 0.05$ ,  
 \*\*\*  $p < 0.01$

Figure 2: Path Analytic Model

Table 1: Path Analysis Results

Dependent Variable	Independent Variable	Associated Hypothesis	Path Coefficient	t-statistics (bootstrapping)	Significant p-value
DAB	BE	H1	0.053	0.865	Not significant
DAB	LBC	H2	0.158	1.156	P<0.10
DAB	LBS	H3	0.709	3.901	P<0.01
DAB	ARv	H4	-0.193	2.691	P<0.01
LBC	BE	H1a	0.138	1.733	P<0.10
LBS	BE	H1b	-0.204	3.227	P<0.01
LBC	ARv	H4a	0.522	7.642	P<0.01
LBS	ARv	H4b	0.517	6.749	P<0.01

The structural model was evaluated on the basis of  $R^2$  and beta coefficients. The stability and statistical significance of the structural path estimates were assessed using the bootstrapping re-sampling method (Tenenhaus et al., 2005). The exogenous variables in the model explained substantial amounts of variance of Dysfunctional Behaviour i.e.  $R^2=0.56$ , Leadership Behaviour Consideration (LBC) for  $R^2=0.31$  and Leadership Behaviour Structure (LBS) for  $R^2=0.34$ . For the satisfaction ratings the components of LBC and LBS together accounted for 78% or partial  $R^2=0.435$  of the total explained variance in the composite latent variable. More specifically, significant predictors for dysfunctional audit behaviour for audit firm factors were LBS (beta 0.709,  $p<0.001$ , %  $R^2=0.637$ ) and ARv (beta -0.193,  $p<0.001$ , %  $R^2=0.173$ ), thus, providing support for Hypotheses 3 and 4.

Hypothesis H1a predicted a positive association between budget emphasis and leadership behaviour consideration, whereas H1b predicted a negative association between budget emphasis and leadership behaviour structure. Both of these hypotheses received strong support. Beta coefficients were positively significant 0.138 ( $p<0.10$ ) for H1a, and negatively significant -0.204( $p<0.01$ ) for H1b.

The second set of sub-hypotheses were for H4a and H4b. H4a predicted a positive association between effectiveness of audit review and leadership behaviour consideration, and H4b predicted a negative association between effectiveness of audit review and leadership behaviour structure. Both H4a and H4b received support i.e. the beta coefficients of 0.522 (H4a) on the link between effectiveness of audit review and leadership behaviour consideration reveals that there is a positive impact, and -0.517 (H4b)

for the negative impact from effectiveness of audit review to leadership behaviour structure.

*Hypothesis 1c (Indirect effect of budget emphasis via leadership behaviour consideration and leadership behaviour structure)*

The indirect association or effect of budget emphasis (BE) on dysfunctional audit behaviour (DB) was then measured by the intervening variables of leadership behaviour consideration (LBC) and leadership behaviour structure (LBS) as per Hypothesis 1c (H1c). The main relationships tested involved indirect and intervening effects. The indirect effects of BE on DB consist of the following paths and are calculated based on the values of path coefficients in Table 2:

Path (1) BE-LBC-DB	$0.138 \times 0.158$	= 0.0218
Path (2) BE-LBS-DB	$-0.204 \times 0.709$	= <u>-0.1446</u>
Total indirect effect		= <u>-0.1228</u>

Path (1) indicates the indirect effect exclusively via leadership behaviour consideration, which is 0.0218. Path (2) indicates the indirect effect through leadership behaviour structure, which is -0.1446. These results show that the relationship between budget emphasis and dysfunctional behaviour comprises two effects. First, there is a direct effect of 0.053 (as per Table 2). Second, there is an indirect effect of -0.123 (see Table 2), which can be further decomposed into the portion attributable to leadership behaviour consideration (0.0218) and the portion attributable to leadership behaviour structure (-0.1446). According to Bartol (1983), an indirect effect in excess of an absolute amount of 0.05 may be considered meaningful and important in path analysis.

Table 2: Decomposition of Observed Correlations BE-DB

Relations	Observed Correlation	Direct Effect	Indirect Effect
BE-DB	-0.272***	0.053	-0.123
BE-LBC	-0.265***	0.138*	
BE-LBS	-0.306***	-0.204***	
LBC-DB	0.137**	0.158*	
LBS-DB	0.217***	0.709***	

\*p<0.10, \*\*p<0.05, \*\*\*p<0.01

In order to ascertain if a full or partial mediation has occurred, the criterion suggested by Baron and Kenny (1986) was used. As the indirect effect via leadership behaviour consideration and leadership behaviour structure are in excess of an absolute amount of 0.05, H1c is supported. For this hypothesis, the relationship between budget emphasis and dysfunctional behaviour at zero order correlation is significant ( $r = -0.272$ ,  $p < 0.01$ ). However, after controlling for the indirect effects via leadership behaviour consideration and structure (LBC and LBS), the path coefficient is not significant. This means that LBC and LBS mediate fully the relationship between budget emphasis and dysfunctional audit behaviour. Based on these results, H1c is supported. In addition, leadership behaviour consideration as well as leadership behaviour structure itself has a significant direct effect on dysfunctional audit behaviour as per Hypotheses 2 and 3 respectively.

*Hypothesis 4c (Indirect effect of effectiveness of audit review via leadership behaviour consideration and leadership behaviour structure)*

The indirect association or effect of effectiveness of audit review in detecting PMSO (AR<sub>v</sub>) on dysfunctional audit behaviour (DB) was then measured by the intervening variables of leadership behaviour consideration (LBC) and leadership behaviour structure (LBS) as per Hypothesis 4c (H4c). The indirect effects of AR<sub>v</sub> on DB consist of the following paths and are calculated based on the values of path coefficients in Table 3:

Path (1) ARv-LBC-DB	$0.522 \times 0.158$	= 0.0825
Path (2) ARv-LBS-DB	$-0.517 \times 0.709$	= <u>-0.3665</u>
Total indirect effect		<u>-0.2840</u>

Path (1) indicates that the indirect effect via leadership behaviour consideration is 0.0825, and Path (2) indicates that the indirect effect via leadership behaviour structure is -0.3665. Both paths reveal the indirect effect of -0.284, which is in excess of an absolute amount of 0.05. These results show that the relationship between effectiveness of audit review and dysfunctional audit behaviour consists of two effects, direct and indirect effect.

Table 3: Decomposition of Observed Correlations ARv-DB

Relations	Observed Correlation	Direct Effect	Indirect Effect
ARv-DB	0.127**	-0.193***	-0.284
ARv-LBC	0.467***	0.522***	
ARv-LBS	0.580***	0.517	
LBC-DB	0.137**	0.158*	
LBS-DB	0.217***	0.709***	

\*p<0.10, \*\*p<0.05, \*\*\*p<0.01

Table 3 presents a decomposition of the zero-order correlations into the direct effects and indirect effects. As the indirect effect via leadership behaviour consideration and leadership behaviour structure is in excess of an absolute amount of 0.05, H4c is supported. Note, however, that only a partial mediation has occurred as zero order correlation between effectiveness of audit review and dysfunctional audit behaviour (0.127, p<0.01) remain significant (-0.193, p<0.01) after controlling for the mediating effects of -0.284.

## Discussion

The purpose of this study was to test empirically a theoretical model of antecedents to dysfunctional audit behaviour. The model suggests that

leadership behaviour structure (LBS) and effectiveness of audit review (ARv) have a direct influence on dysfunctional behaviour, and that leadership behaviour (consideration and structure) have indirect effects on dysfunctional audit behaviour.

Hypothesis 1 predicts that high perceived emphasis on meeting time budgets in the evaluation of performance (Budget Emphasis/B.E.) will be associated with an increase in dysfunctional behaviour. The beta coefficient is 0.053 and not significant at  $p > 0.05$  level (t-statistic 0.865). Contrary to our hypothesis, auditors who perceived they can meet time budgets in the evaluation of performance are less likely to increase their dysfunctional behaviour. However, this result is consistent with the findings of Otley and Pierce (1996) and Rhode (1978) who explained a budget-conscious environment as an accepted feature of the auditor's work, and that perceived differences in the degree of emphasis given to budget achievement have little impact on auditor behaviour and attitudes.

The descriptive statistics on perceived budget emphasis support the above explanation; budget emphasis is important in the Malaysian context with a mean score of 2.00 (i.e., Quite Important) with almost 85% of respondents agreeing that budget emphasis ranges from 'quite important' to 'very important'. Another notable finding is that, for each of the dysfunctional behaviours studied; the perceived emphasis on meeting time budgets in the evaluation of performance (Budget Emphasis/B.E.) was not a significant variable. A likely explanation as per Otley and Pierce (1996) and Rhode (1978) is that a budget-conscious environment is an accepted feature of the auditor's work, and that perceived differences in the degree of emphasis given to budget achievement have little impact on auditor's behaviour.

It has been argued that budgets will continue to be the element that affects dysfunctional behaviour; however, other qualitative factors such as leadership style are also likely to be important in the dysfunctional behaviour. Hypothesis 2 predicts that high levels of consideration in the leadership style (LBC) of partners will be associated with low levels of dysfunctional behaviour. The beta coefficient is 0.158 and marginally significant (t-statistic 1.156,  $P < 0.10$ ). This is inconsistent with the hypothesis, where level of consideration in the leadership style or partners is most likely to be associated with low levels of dysfunctional behaviour.

This finding is also inconsistent with those of Otley and Pierce (1996) and Pratt and Jiambalvo (1981), but consistent with Kelley and Margheim (1990). In addition, the analysis of specific dysfunctional audit behaviour found assessed with specific dysfunctional LBC to be positively correlated to accepting a weak client explanation and reduced audit work (0.450 and 0.421 respectively, significant at a level of 0.05), and negatively correlated to a superficial review of documents and PMSO (-0.141 and -0.181 respectively at the 0.01 significant level).

Hypothesis 3 predicts that high levels of structure in leadership style (LBS) of partners will be associated with the high levels of dysfunctional behaviour (DB). The beta coefficient is 0.709 and significant at the 0.05 levels (t-statistic 3.901), thus suggesting the acceptance of this hypothesis. Further Pearson's correlation also suggests that LBS is significantly correlated with DB at the coefficient of 0.000 with p levels at 0.01. This result is consistent with Otley and Pierce's (1996) study which found that structure in leadership style of partners is associated with the level of dysfunctional behaviour. The results support control theory that suggests a highly-structured management, concerned with establishing well-defined work procedures is likely to lead to dysfunctional behaviour. On the other hand, the result is inconsistent with Pratt and Jiambalvo (1981) who investigated leadership behaviour in an audit context and concluded that there was some evidence of an effect of leadership consideration on audit performance but not on leadership structure.

Hypothesis 4 was also supported by the findings. This is further supported by descriptive statistics which highlighted the fact that 60% of respondents felt 'often' that audit review procedures were effective in detecting PMSO. ARV was also found to be not significantly correlated to each specific action of dysfunctional behaviour. The results for Hypotheses 1a, 1b, 4a and 4b, overall, provide additional findings on the indirect effect of leadership behaviour (both structure and consideration) to the dysfunctional audit behaviour. These findings provide strong support for the theory provided by Fleet and Griffin (2006) for which leaders play a major role to elicit dysfunctional behaviour.

## Limitations and Implications for Future Research

The present study makes a contribution in the area of dysfunctional audit behaviour by focusing on the combined effect of the independent variables associated with control systems. The findings produced consistent evidence that it is not an emphasis on meeting budgets that leads to undesirable behaviour, but contextual variables, such as leadership behaviour structure and the effectiveness of audit review. When assessing the implications of this study, it is necessary to understand that the findings are subject to a number of limitations. First, survey studies are subject to both lack of control limitations and potential bias associated with self-reporting. Second, problems of omitted and uncontrolled intervening or moderating variables may exist. Third, this study focused only on the auditing environment. Future research is needed to determine whether the variables examined in this study also lead to dysfunctional behaviours in other accounting settings.

## References

- Alderman, C. W. and Deitrick, J. W. (1982). Auditors' Perception of Time Budget Pressures and Premature Sign Offs: A Replication and Extension, *Auditing: A Journal of Practice and Theory*, 1,2 : 54 - 68.
- Baron R.M and Kenny, D.A. (1986). The Moderator-Mediator Variable: Conceptual, Strategic and Statistical Consideration, *Journal of Personality and Social Psychology*. 26, 10 : 110-132.
- Bartol, K.M. (1983). Turnover among DP Personnel: A causal Analysis. *Communications of the ACM*. 26 : 807-811
- Chin, W., Marcolin, B. and Newsted, P. (2003). A Partial Least Square (PLS) Latent Variable Modeling Approach for Measuring Interaction Effect: Results from A Monte Carlo Simulation Study, University of Calgary working paper.
- Choo, F. (1995). Auditors Judgement Performance Under Stress: A Test of Predicted Relationship by Three Theoretical Models', *Journal of Accounting, Auditing and Finance (Summer)* : 611 – 641.

- Cook, E. and Kelley, T. (1988). Auditor Stress and Time Budgets, *The CPA Journal* (July) : 83 - 86.
- Donnelly, D. P., Bryan, D. O. and Quirin, J. J. (2003). Auditor Acceptance of Dysfunctional Audit Behaviour: An Explanatory Model Using Personal Characteristics, *Behavioral Research in Accounting*, 15 : 87 - 110.
- Fleet, D.D.V. and Griffin, R.W. (2006). Dysfunctional Organisation Culture: The Role of Leadership in Motivating Dysfunctional Work Behaviours, *Journal of Managerial Psychology*, 21, 8 : 698 – 708.
- Kelley, T. and Seiler, R. E. (1982). Auditor Stress and Time Budgets, *The CPA Journal*, December (24 - 34).
- Kelley, T. and Margheim, L. (1990). The Impact of Time Budget Pressure, Personality and Leadership Variables on Dysfunctional Audit Behavior, *Auditing: A Journal of Practice and Theory*, 9, 2 : 21 - 42.
- Lightner, S. M., Adams, S. J. and Lightner, K. M. (1982). The Influence of Situational, Ethical and Expectancy Theory Variables on Accountants' Underreporting Behaviour, *Auditing: A Journal of Practice and Theory* (Fall) : 1 - 12.
- Malaysian Institute of Accountants (MIA) Practice Review Committee Report for 2003 to 2006. (sighted on 21/12/2008, at <http://www.mia.org.my/dept/prw/circulars.htm>).
- Malone, C. F. and Roberts, R. W. (1996). Factors Associated with the Incidence of Reduced Audit Quality Behaviours, *Auditing: A Journal of Practice and Theory*, 15, 2 : 49 - 64.
- McDaniel, L.S. (1990). The Effect of Time Pressure and Audit Program Structure on Audit Performance, *Journal of Accounting Research*. 28 : 267 – 285.
- Margheim, L. and Pany, K. (1986). Quality Control, Premature Sign Offs and Underreporting of Time, *Auditing: A Journal of Practice and Theory*, 5, 2 : 50 - 63.
- Otley, D. T., & Pierce, B. J. (1995). The control problem in public accounting firms: An empirical study of the impact of leadership style. *Accounting, Organizations and Society*. Vol 20, 405 – 420.

- Otley, D. T. and Pierce, B. J. (1996). The Operation of Control Systems in Large Audit Firms, *Auditing: A Journal of Practice and Theory*, 15, 2 : 65 - 84.
- Paino, H, Smith, M and Ismail, Z. (2010). Dysfunctional Audit behavior: En explanatory study in Malaysia, *Asian Accounting Review*, 18, 2 : 162-173.
- Paino, H, Smith, M and Ismail, Z (2011). Dysfunctional Audit Behavior: Effects of Employee Performance, Turnover Intentions and Professional/Organizational Commitment. *Journal of Modern Accounting and Auditing*, 7, 1 : 1110-1124.
- Paino, H, Smith, M and Ismail, Z (2012). Auditor Acceptance of Dysfunctional Audit Behaviour, *Journal of Applied Accounting Research*, 11, 3 : 37-55.
- Pratt, J. and Jiambalvo, J. (1981). Relationships between Leader Behaviours and Audit Team Performance, *Accounting, Organizations and Society*, 6, 2 : 133 - 142.
- Ragunathan, B. (1991). Premature Signing-Off of Audit Procedures: An Analysis. *Accounting Horizons (June)* : 71 – 79.
- Rhode, J. G. (1978). Survey of The Influence of Selected Aspects of The Auditor's Work Environment on Professional Performance of CPA. AICPA, New York.
- Smith, R. (1995). Under-Reporting of Time: An Analysis of Current Tax Practices, *Journal of Applied Business Research*. 11 : 39 – 45.
- Stogdill, R.M. (1963). Manual for The Leadership Behaviour Description Questionnaire Form XII. Columbus: Bureau of Business Research, Ohio State University.
- Tenenhaus, M., Vinzi, V.E., Chatelin, N. and Lauro, B. (2005). PLS Path Modelling. *Computational Statistics and Data Analysis*, 48 : 159 – 205.