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Halil Paino

Zubaidah Ismail

Edith Cowan University, z.ismail@ecu.edu.au

Malcolm Smith

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Modelling dysfunctional behaviour: individual factors and ethical financial decision

Halil Paino^{a*}, Zubaidah Ismail^b and Malcolm Smith^c

^aAccounting Research Institute and Universiti Teknologi MARA 26400 Pahang, Malaysia

^bEdith Cowan University, 2 Bradford St, Mt Lawley W.A. 6050 Australia

Abstract

In this study, the organisational behaviour comprises of individual factors and industrial psychology literatures provide the basis for the developing and testing an individual factors' model over dysfunctional audit behaviour. Using a path analysis for direct and indirect effects, survey results from the registered Audit Managers generally support the explanatory model. Overall, the results indicate that auditors who are more accepting dysfunctional behaviour tend to possess an external locus of control and exhibit higher turnover intentions. The results can be useful in the operational and management control mechanism of human and social developments relating to dysfunctional behaviour issues.

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Keywords: Dysfunctional Audit Behaviour; Locus of Control; Turnover Intentions; Organisation Commitment; Employee Performance.

1. Introduction

The panel on Audit Effectiveness was established by AICPA's Public Oversight Board to examine the issue of audit quality (Public Oversight Board, 2000). The panel gathered information from peer reviews and 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. Based on its findings, the Panel of Audit Effectiveness recommended that

* Corresponding author. *E-mail address:* halil@pahang.uitm.edu.my

managing the potential risks from excessive time pressures on audit teams must be a high priority for audit firms. It also recommended that firms assess the extent of time pressures on the audit engagements and the firms' success in managing those pressures. Finally, the Panel urged firms to provide guidance and training on actions that engagement partners and other supervisory personnel should consider in managing time pressures.

This study makes contribution in both the auditing literature and the behavioural literature in organizational aspect. The study advances Malaysian auditing research by examining the specific factors that contribute to this behaviour including locus of control, self-rated performance and turnover intentions. In early 2007, the MIA Practice Review Committee issued the first ever Practice Review (PR) report undertaken by MIA, for the period of 2003 to 2006, and highlighted some audit quality problems when judges against International Standards on Auditing (ISA), Malaysia Standards on Auditing (MSA) and Company Act 1965 requirements. This study was carried out to coincide with that report (publicly available at the MIA website as <http://www.mia.org.my/dept/prw/circulars.htm>). A survey of specific DAB from all level of auditors in 2007 confirms the existence of DAB within Malaysian practices. Fifty-seven percent of respondents admitted to engaging in some form of DAB such as premature sign-off, and seventy-two percent of respondents admitted to engaging 'at least sometimes' in one or more of the specified behaviours (Paino, 2008).

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 environment (i.e. the control system). These behaviours can, in turn, have both direct and indirect impacts on audit quality. Behaviours that directly affect audit quality include premature signing-off of audit steps without completion of the procedure (Otley and Pierce, 1995; Rhode, 1978; Alderman and Deitrick, 1982), 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; Kelley and Margheim, 1990; Lightner, Adam and Lightner, 1982). Underreporting time leads to poor personnel decisions, obscure the need for budget revisions, and result in unrecognized time pressures on future audits (Donnelly, Quirin and Bryan, 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) extend 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 behaviours 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. In essence, this literature fails to support the claim that predispositions towards DAB may be a function of personal characteristics. In addition, it assumes that all auditors will have similar reactions to environmental factors such as time pressure.

The purpose of this study is to investigate individual or personal factors contributing to individual auditor differences in acceptance of DAB. Identifying the factors that contribute to an auditor's attitudinal acceptance of DAB can be regarded as an important first step in ascertaining the determinants of actual DAB. To this end, the explanatory or theoretical model was developed that relates to locus of control, self-rated performance, organizational commitment, and turnover intentions to auditors' acceptance of DAB. Specifically, it is hypothesized that auditors with an external locus of control, higher self-rated performance and lower turnover intentions are more accepting of DAB. Using a path analysis from Partial Least Square (PLS) technique, results of an analysis of 225 auditors generally support the proposed explanatory model. The remainder of this paper is organized into four sections. The first section presents the theoretical development and the hypotheses of the study, while the second section discusses the research method including data collection and measurement information. In the third section, empirical results are presented. The final section concludes with a discussion and limitations of the study.

2. Theoretical Development

Auditor acceptance of DAB is likely to contribute to an environment in which DAB occurs more frequently. To further our understanding of the underlying factors contributing to DAB, this section develops a theoretical model linking to locus of control (LOC), self-rated performance (EP), and turnover intentions (TI) to auditor acceptance of DAB. These linkages are referred to as the direct associations. Additional indirect effects are also discussed followed by a formal presentation of the research hypotheses. The full theoretical model appears in Fig. 1. Each link in the model is labeled with its respective hypothesis and discussed subsequently.

2.1 Direct association with dysfunctional behaviour

Auditor acceptance of dysfunctional behaviour is likely to contribute to an environment in which dysfunctional behaviour occurs more frequently. To further understand the underlying factors contributing to acceptance of dysfunctional behaviour in relation to individual factors, individual factors namely locus of control, self-rated performance and turnover intentions were tested i.e. the direct association of selected individual factors to acceptance of dysfunctional behaviour, and is a modification to the audit quality model developed by DeAngelo (1981).

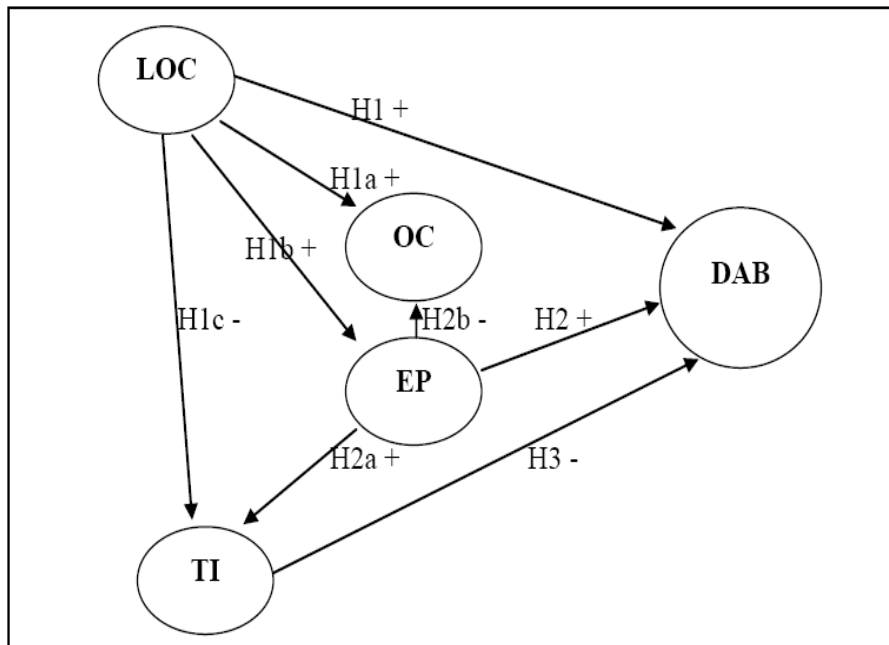


Fig. 1. Theoretical model

While most research in the area of dysfunctional behaviour has focused on the individual, it seems quite likely that the organisation also plays a vital role. For one thing, the organisation is important in that it provides a setting in which the individual may display dysfunctional behaviour. The individual spends most of his waking hours at the job sites, thus increasing the timeframe within which he/she is displaying his behaviour. An organisation provides people toward whom the individual may find it easier to display this behaviour, rather than towards the family members. And the work setting provides all kinds of stimulants that could provoke individuals who already have a high propensity toward dysfunctional behaviour.

Studies have shown a strong correlation between locus of control and individual's willingness to use deception

or manipulation (e.g., Gable and Dangelo, 1994; Comer, 1985). Based on a meta-analytic review of 20 studies examining this relationship, Mudrack (1989) concluded that the use of manipulation, deception, or ingratiation tactics might reflect an attempt on the part of externals to assert some influence over a hostile or stressful environment. Furthermore, this behaviour is most likely to manifest itself in situations where the employee perceives a high degree of structure or supervisory control (Gable and Dangelo, 1994). In auditing context, manipulation or deception will manifest itself in the form of dysfunctional audit behaviour. These behaviours are the means for the auditor to manipulate the audit process in order to achieve individual's performance objective. The reduction in audit quality resulting from these actions may be viewed as a necessary sacrifice in order for the individual to survive in the audit environment (Donnelly et al., 2003).

Locus of control has been used extensively in behavioural research to explain human behaviour in organisational settings. Donnelly et al. (2003) suggest that individuals develop generalised expectations of whether success in a given situation will be contingent on their own personal behaviour or controlled by external forces. On one hand, individuals with an internal locus of control are more likely to rely on their own determination of what is right and wrong and are more likely to accept responsibility for the consequences of their behaviours. On the other hand, individuals with an external locus of control believe that results are attributable to things beyond their control, and are less likely to take personal responsibility for the consequences (Shapeero, Koh and Killough, 2003). Thus, the following hypothesis was tested:

H1: There is a positive association between external locus of control (LOC) and acceptance of dysfunctional behaviour.

The literature suggests that dysfunctional behaviour occurs in situations where individuals see themselves as less capable of achieving the desired or expected outcome through their own efforts (Gable and Dangelo, 1994). Thus, dysfunctional behaviour is viewed as necessary in situations where organisations and/or personal goals cannot be achieved through typical means of performance (Donnelly et al., 2003). This relationship is considered stronger in an environment perceived by the employee to have high structure or supervisory control (Gable and Dangelo, 1994). The use of audit programs, time budgets and close supervision could cause the audit process to be perceived as a highly structured environment. There is no conclusive evidence on the association between performance and dysfunctional behaviour in general. This is expected given that the purpose of the dysfunctional act is to manipulate the performance measure, making it difficult to obtain a true performance indicator. Lightner et al. (1982) suggest that personal beliefs have impact on auditor's willingness to engage in dysfunctional behaviour. Therefore, the following hypothesis was suggested to be tested:

H2: There is a positive association between employee self-rated performance (EP) and acceptance of dysfunctional behaviour.

Malone and Roberts (1996) suggest that auditors with intentions to leave the firm could be more willing to engage in dysfunctional behaviours due to the decreased fear of possible termination if the behaviours were detected. Furthermore, individuals intending to leave their organisations may be less likely to be concerned with the potential adverse impact of dysfunctional behaviour on performance appraisal and promotion. Thus, with the development of code of conducts for the auditors as well as the rising concern over the ethics in auditing profession, the following hypothesis was tested:

H3: There is a negative association between turnover intention (TI) and acceptance of dysfunctional behaviour.

2.2 Indirect association with dysfunctional behaviour

Incorporating the interrelationships among external locus of control (LOC), self-rated performance (EP) and turnover intentions (TI) can provide a better understanding of the complex causes of dysfunctional behaviour. Additionally, existing literature indicates that organizational commitment (at the audit team factors) may also play a prominent role in individual factors through its effect on EP and TI. Thus, a discussion of these associations follows. LOC has been found to be an antecedent to organizational commitment (OC) (Kinicki and Vecchio, 1994). In theory, committed employees should work harder, remain with the organization, and contribute more effectively to an organization (Mowday, Steers and Porters, 1979). Prior research also shows that LOC is significantly related and linked to performance, promotion and salary decisions (Andrisani and Nestle, 1976; Heisler, 1974). The investigation of the role of LOC in the accounting literature has been somewhat limited. LOC was identified as a

moderator in the participation/performance association in several earlier participative budgeting studies (Frucot and Shearon, 1991; Brownell, 1981). In an audit setting, Hyatt and Prawitt (2001) provide some evidence that LOC is associated with enhanced performance.

Several studies have found a significant relation between locus of control and job tenure showing internals are less prone to turnover than externals (Andrisani and Nestle, 1976; Organ and Greene, 1974). Given the technical and professional natures of the auditing profession, internals are expected to be better suited for positions in an audit setting, while externals are more likely to experience greater job-related conflict. It is hypothesized that this inherent difference between internals and externals will manifest itself in the auditing profession via turnover intentions. Specifically, externals are expected to exhibit higher levels of turnover intentions. Thus, based on these discussions, the following hypotheses were tested:

H1a: There is a positive association between LOC and OC.

H1b: There is a positive association between LOC and EP.

H1c: There is a negative association between LOC and TI.

In summary, based on the discussion above, locus of control (LOC) is expected to be positively related to the acceptance of dysfunctional audit behaviour (DB). In addition to that, LOC is also expected to be positively related to OC and EP, and negatively related to TI. In turn, OC is expected to have a negative association, EP is expected to have positive association and TI is expected to have negative association with DB. These relationships therefore suggest that the effect of LOC on dysfunctional audit behaviour may be indirect through OC, EP and TI. The following hypothesis is therefore tested:

H1d: Locus of Control (LOC) has an indirect effect on Acceptance of Dysfunctional Audit Behaviour (DB) through the Organisational Commitment (OC), Employee Performance (EP) and Turnover Intentions (TI).

Employee performance (EP) as an antecedent to TI has received considerable attention. Although it has been argued that superior performers have greater opportunities and are therefore more likely to turnover (Price, 1977), recent studies suggest that this may not be the case. In fact, superior performers have been found to be more likely to be promoted and to stay with their respective organizations than poor performers (Vecchio and Norris, 1996; Wells and Muchinsky, 1985). Given the promotion/tenure nature of public accounting, one would expect that this type of relation to exist. Auditors who exhibit high levels of performance are promoted, while those who are unable to attain minimum performance standards are eventually forced out of the organization. Based on these findings, it is expected that EP will be inversely related to TI.

Numerous studies have viewed OC as an antecedent to performance. Work by Mowday et al. (1974) suggests that highly committed employees perform better than less committed one. Ferris (1981) found that the performance exhibited by junior level professional accountants, was, in part affected by their level of OC. Similarly, in a study of the determinants of auditor performance, Ferris and Larcker (1983) indicated that auditor's performance was, in part, function of OC. In the current study, employees with greater OC are expected to exhibit better performance (EP). Thus, based on the above discussion, the following two hypotheses were tested:

H2a: There is a negative association between EP and TI.

H2b: There is a positive association between EP and OC.

The direct effect suggests that EP to be positively related to the acceptance of dysfunctional audit behaviour (DB) whereas, the discussion on indirect association suggests that EP to be positively related to TI and negatively related to OC. In turn, OC and TI are expected to have negative association with DB. These relationships therefore lead to the following hypothesis:

H2c: Employee self-rated Performance (EP) has an indirect effect on the acceptance of Dysfunctional Audit Behaviour (DB) through Turnover Intentions (TI) and Organisational Commitment (OC).

3. Research Method

3.1 Data collection

Data was collected using a survey questionnaire sent to all Audit Managers registered with Malaysian Institute of Accountants (MIA) to a total of 621 Audit Managers. Questionnaires were sent out to firms of a wide variety of sizes 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 respondents were in the age group of 35 to 39 years old and have had audit experience for 10 to 14 years. Female respondents represented approximately 72 percent of the returned instruments.

3.2 Measures

The variables measured in the questionnaire were drawn from previous literature. Locus of control was measured using a summed total of 16-item Spector (1988). Respondents were asked to identify the relations between reward/outcomes and causes using a seven-point Likert type scale. The instrument's reliability and validity have been deemed acceptable in prior research (Blau, 1993; Donnelly et al., 2003; Spector, 1988). In the current study, the Cronbach Alpha was 0.41. A summed total of Mowday et al.'s (1979) nine-item short-form instrument was used to measure organizational commitment. The Cronbach Alpha for the current study was 0.72.

Employee self-rated performance was measured using a modified version used in Donnelly et al.'s (2003) multi-dimensional nine-item scale. Respondents were asked to evaluate their individual performance with regard to six performance dimensions, including planning, investigating, coordinating, supervising, representing and staffing. Respondents were then asked to rate their overall effectiveness in the final question. The Cronbach Alpha for the current study was 0.40. A summed three-item turnover intentions scale assessed the respondent's immediate turnover intentions (within 2 years), middle term turnover intentions (within 5 years), and long term intentions (until retirement). This multi-period approach is supported by prior literature in auditing studies (Donnelly et al., 2003).

For the acceptance of dysfunctional audit behavior (DAB), respondents were asked to report their acceptance rather than their actual engagement in dysfunctional behaviour. Three major types of dysfunctional audit behaviour deemed harmful to audit quality were used: premature sign-off (Accept PMSO), under-reporting of time (Accept URT) and altering/replacement of audit procedures (Accept ARAP). A 12-item, three-part dysfunctional audit behaviour instrument was used to measure how accepting an auditor was to the various forms of dysfunctional behaviour (Donnelly et al., 2003). Principal components, Varimax with Kaiser Normalization rotation factor analysis indicated that all 12-item loaded above 0.5 and suggested to be used for hypotheses testing. Further Cronbach Alpha for the 12-item was 0.76.

3.3 Path analysis

Path analysis using Partial Least Square (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 can be defined as a constrained form of component modeling, whereas conventional SEM analysis such as LISREL can be seen as modelling with common factors. Testing the path significance is accomplished by bootstrapping method. Conducting PLS analysis involves a two-step procedure. The first step is to evaluate a measurement model for each latent construct. In practice, this 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) advise 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 is assessed by examining the loading of the items on their corresponding construct. Cronbach Alpha is the most common method used to assess measurement reliability. The measure for internal consistency is assessed by Composite reliability (CR) with the desired value of above 0.7. The last indicator is the average variance extracted (AVE). It simply refers to how much the items explain the variance of the construct. The desired value for AVE is above 0.5. The Cronbach Alpha for DAB is 0.72, and the AVE is 0.64 with their individual item's loadings ranging from 0.40 to 0.85. The Cronbach Alpha for leadership behaviour

consideration is 0.91, and the AVE is 0.79. Their individual item's loadings were from 0.60 to 0.85. The Cronbach Alpha for leadership behaviour structure is 0.91, and the AVE is 0.84 with their individual item's loading ranging from 0.42 to 0.91. As both effectiveness of audit review and budget emphasis were only having one item, their loadings were 1.00.

PLS path analysis uses similar indicator to regression analysis to interpret results. R-square (R^2) can have values 0-1. Higher values indicate 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 PLS uses *bootstrapping* method to calculate t-values. In statistics, bootstrapping is a method for estimating the sampling distribution of an estimator by re-sampling with replacement from the original sample.

4. Empirical Results

Table 1 presents the results of the main analysis and lists each hypothesis and its corresponding path coefficient. Figurative representations of the main results are also displayed in Fig. 2. The structural model was evaluated on the basis of R^2 for each endogenous latent variable, structural paths, and effect sizes of exogenous composite latent variable. The stability and statistical significance of the path estimates were assessed using the bootstrapping re-sampling method. As shown in Table 2, exogenous variables explained generous amount of variance of dysfunctional behaviour ($R^2=0.38$), and at least some variance of turnover intentions ($R^2=0.20$), employee performance ($R^2=0.28$) and organisational commitment ($R^2=0.26$). For the satisfaction ratings, as shown in Table 2 the components of turnover intentions (TI) accounted for a partial $R^2=0.159$, or 41.77% of the total explained variance in the acceptance of dysfunctional behaviour, followed by employee performance (EP) which accounted for a partial $R^2=0.125$, or 32.89% of the total variance explained. The effect size for locus of control (LOC) accounted for a partial $R^2=0.096$, or 25.34% of the total variance explained in the acceptance of dysfunctional behaviour. Although lower in effect size, locus of control was significant (beta coefficient of 0.211, $p<0.10$ for a directional test), thus supported the hypothesis H1.

Locus of control was then tested with the organisational commitment (H1a), employee performance (H1b) and turnover intentions (H1c) for indirect association with the dysfunctional behaviour. In this research, LOC was predicted to have a positive association with OC and EP, and have a negative association with TI. Results from the data analysis show a positive effect (beta coefficient of 0.211) on dysfunctional behaviour, but this path is not statistically significant, thus rejecting H1a. On the other hand, hypothesis H1b received strong support with the beta coefficient of 1.108 (t-statistics was significant at $p<0.10$). In addition, it was predicted that LOC to have a negative association with TI, but the result from data analysis shows otherwise. It shows that LOC have a negative association to TI (beta coefficient -0.067), but this path is not statistically significant, therefore, H1c was not supported.

Employee performance (EP) was then hypothesised to have a positive association with dysfunctional behaviour for hypothesis H2. This hypothesis received strong support with beta coefficient 0.274 (significant at the level of 0.01). In addition to that, EP was also hypothesised to have a negative association with TI for hypothesis H2a, and a positive association with OC for hypothesis H2b. Both hypotheses received strong support and significant at the level of 0.01. Beta coefficient was -0.413 for H2a, and 0.460 for H2b (at $p<0.01$). Lastly, TI was hypothesised to have a negative association with dysfunctional behaviour for hypothesis H3. This path was negative (beta coefficient of -0.348) and was statistically significant (at $p<0.01$), therefore, H3 was supported.

Table 1: Path Analysis Results

Dependent Variable	Independent Variable	Associated Hypothesis	Path Coefficient	t-statistic (bootstrapping)	Significant p-value
DAB	LOC	H1	0.211	1.106	P<0.10
DAB	EP	H2	0.274	2.798	P<0.01
DAB	TI	H3	-0.348	2.964	P<0.01
OC	LOC	H1a	0.13	0.791	Not significant
EP	LOC	H1b	0.278	1.108	P<0.10
TI	LOC	H1c	-0.067	0.567	Not significant
TI	EP	H2a	-0.413	5.903	P<0.01
OC	EP	H2b	0.46	2.309	P<0.01

Table 2. R², and partial R² (unique variance components) of DAB accounted for by LOC, EP and TI

	R ²	Partial R ²	% R ²
DAB	0.38		
LOC	0.26	0.096	25.34
EP	0.28	0.125	32.89
TI	0.2	0.159	41.77

The indirect association or effect of locus of control (LOC) on acceptance of dysfunctional audit behaviour (DB) was then measured by the intervening variables of organisational commitment (OC), employee self-rated performance (EP) and turnover intentions (TI) as per Hypothesis 1d (H1d). In order to ascertain if a full or mediation occurs, the criterion suggested by Baron and Kenny (1986) was used. The main relationships tested involve indirect and intervening effects. The zero order correlations between the variables examined are presented in Table 3 on decomposition of the observed correlations. The indirect effects of locus of control on dysfunctional audit behaviour are calculated based on the values of the following path coefficients:

$$\begin{aligned}
 \text{Path (1) LOC-OC-DB} & \quad 0.130 \times -0.335 = -0.0434 \\
 \text{Path (2) LOC-EP-DB} & \quad 0.278 \times 0.274 = 0.0762 \\
 \text{Path (3) LOC-TI-DB} & \quad -0.067 \times -0.348 = \underline{-0.0233} \\
 \text{Total indirect effect} & \quad \underline{\underline{0.0095}}
 \end{aligned}$$

The results in Table 3 indicate that there were very weak indirect effects of organisational commitment, employee self-rated performance and turnover intentions on the acceptance of dysfunctional behaviour. According to Bartol (1983), a path coefficient of 0.05 and greater is important in a path analysis. As the indirect effect via organisational commitment, employee self-rated performance and turnover intentions is less than 0.05, H1d is not supported and rejected. The absence of finding significant indirect effects is probably attributable to insignificant relationship between locus of control and organisational commitment, employee self-rated performance and turnover intentions at the zero-order correlation (observed correlation).

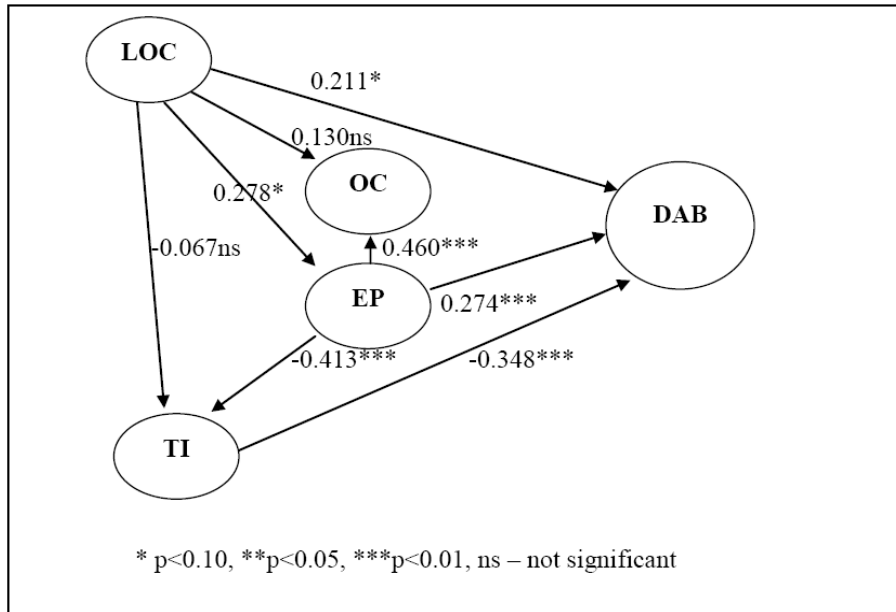


Fig. 2. Path analytic model

Table 3. Decomposition of observed correlations LOC-DB

Relations	Observed Correlation	Direct Effect	Indirect Effect
LOC-DB	0.334**	0.211*	0.0095
LOC-OC	-0.11	0.13	
LOC-EP	0.03	0.278*	
LOC-TI	-0.022	-0.067	
OC-DB	0.359***	-0.335***	
EP-DB	0.168**	0.274***	
TI-DB	-0.421***	-0.348***	

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

The indirect association or effect of employee self-rated performance (EP) on acceptance of dysfunctional audit behaviour (DB) was then measured by the intervening variables of turnover intentions (TI) and organisational commitment (OC) as per Hypothesis 2c (H2c). The indirect effects of employee self-rated performance on acceptance of dysfunctional audit behaviour (DB) consist of the following paths: Path (1) EP-TI-DB $(-0.413 \times -0.348) = -0.1437$ and. Path (2) EP-OC-DB $(0.460 \times -0.335) = -0.1541$. Total indirect effect was -0.2978.

Table 4. Decomposition of observed correlations EP-DB

Relations	Observed Correlation	Direct Effect	Indirect Effect
EP-DB	0.168**	0.274***	-0.2978
EP-TI	-0.014	-0.413***	
EP-OC	-0.048	0.460***	
OC-DB	0.359***	-0.335***	
TI-DB	-0.421	-0.348***	

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

Path (1) indicates the indirect effect exclusively via turnover intentions, which is -0.1437, and Path (2) indicates the indirect effect through organisational commitment (-0.1541). As the indirect effects via turnover intentions and organisational commitment are in excess of an absolute amount of 0.05, H2c is supported. However, it is notable that only a *partial mediation* has occurred as zero-order correlation between employee self-rated performance and acceptance of dysfunctional audit behaviour (0.168) remains significant (0.274) after controlling for the mediating effects (Table 4).

5. Discussion

The result of H1 implies that external locus of control are more likely to be accepting of dysfunctional audit behaviour. On the other hand, auditors with the strongest internal locus of control traits were less likely to accept dysfunctional behaviour. Results of this study also suggest that external locus of control may play a significant role in auditor behaviour. This result is consistent with the study by Donnelly et al. (2003). In addition to that, the result of a positive association provide a support for a studies by Gable and Dangelo (1994) and Comer (1985) in which they found that the positive correlation between external locus of control (LOC) and a willingness to use deception or manipulation in order to achieve personal objectives.

Hypothesis 2 predicts that there is a positive association between self-rated performance (Employee Performance/EP) and acceptance of dysfunctional behaviour (Accept DB). The path coefficient linking these two variables is 0.274 and is significant at the $p < 0.01$ level (bootstrap t-statistic 2.798). Therefore the acceptance of this hypothesis is supported. A notable finding was the fact that employee performance was a significant variable ($p = 0.011$ at the 5 percent level) for an acceptance to underreporting of time (Accept URT). This finding appears to suggest that underreporting of time (URT) is acceptable when high employee self-rated performance is concerned. The results from this hypothesis indicate that self-reported, high performance is associated with higher acceptance of dysfunctional behaviour.

This result is inconsistent with Donnelly et al. (2003), in which they found the negative association relationship between EP and acceptance of dysfunctional audit behaviour (conditioned by LOC and organisational commitment). Dysfunctional audit behaviour is viewed as necessary in situations where organisational and personal goals cannot be achieved through typical means of performance. This relation is considered stronger in environments perceived by the employee to have high structure or supervisory control (Gable and Dangelo, 1994). The use of audit programs, time budgets, and close supervision could cause the audit process to be perceived as a highly structured environment. As there is no conclusive evidence on the association between EP and acceptance of dysfunctional behaviour in general, this study suggests that auditors having a higher perception of their performance level are expected to exhibit a higher acceptance of dysfunctional audit behaviour as hypothesised.

Hypothesis 3 predicts that there is a negative association between turnover intentions (TI) and acceptance of dysfunctional behaviours. While the accounting turnover literature has focused almost exclusively on the negative aspects of turnover, this study supports that turnover is negative. From the statistical tests for the path coefficient, the turnover intention (TI) is negatively correlated with the dependent variable of acceptance of dysfunctional behaviour (Accept DB) i.e. at the 0.01 significance level (beta coefficient -0.348, t-statistic 2.964). Therefore, the

results suggest that this hypothesis should be supported and accepted. This association points to the existence of potentially negative attrition for the firm and profession. Auditors with lower turnover intentions are more accepting to dysfunctional behaviour, so their voluntary departure to another profession potentially improves audit quality. There is no doubt that any turnover is costly in terms of the lost investment in training and development, but this must be balanced against the possible benefits of higher audit quality and the resulting lower costs of avoiding audit failures (Donnelly et al., 2003). Another notable finding was the fact that turnover was a significant variable (at 1 percent level) for acceptance of underreporting of time (Accept URT) and acceptance of altering or replacing audit procedures (Accept ARAP).

The finding of the direct effect between external locus of control (LOC) and dysfunctional audit behaviour (DB) reveals the positive association as predicted in the hypothesis (H1). This study also extends the analysis on LOC by demonstrating the indirect association of LOC. These indirect association or effect may reflect the influence of OC, EP and TI have on LOC with regard to dysfunctional audit behaviour. Hypothesis 1a (H1a) was not supported i.e. the prediction of a positive association between external locus of control and organisational commitment (OC). This indicates that the strength of internal traits (locus of control) significantly influences organisational commitment. As hypotheses 1b (H1b) was supported, results of the study indicate that employee self-rated performance (EP) was influenced by the external locus of control or external traits. This is especially true in a public accounting or auditing firm environment where the meeting of time deadlines and budget estimates are an important part of the evaluation process. Hypothesis 1c (H1c) predicts that there is a negative association between external locus of control and turnover intention (TI). This was not supported by the results, and thus indicates that external traits would not exhibit higher levels of turnover intentions. As for the overall for the discussion of locus of control, this study suggests that efforts to control and reduce dysfunctional audit behaviour might best be targeted towards those with higher (i.e. external) scores on the locus of control scale. The present study was unable to incorporate the indirect effect of locus of control to dysfunctional audit behaviour via organisational commitment, employee performance and turnover intentions as hypothesised at H1d. The estimated indirect effect as presented in Table 3 was less than the suggested 0.05 thresholds. As noted, the absence of findings significant to indirect effects is probably attributable to the insignificant relationship between LOC-OC, LOC-EP and LOC-TI at the zero-order correlation.

In addition to hypothesis 2, as predicted in H2a, employee performance is inversely associated with turnover intention. The result implies that, auditors who exhibit higher levels of performance will be promoted, while those who are unable to attain minimum performance standards are eventually out of the organisation. On the other hand, as predicted in hypothesis 2b, employee performance is positively associated with the organisational commitment. This result suggests that highly committed employees perform better than less committed ones. This is consistent with the findings from Ferris and Larcker (1983) in which the determinants of auditor's performance were, in part, the function of organisational commitment. The findings on employee performance (EP) extend previous studies by demonstrating that the relationship between EP and dysfunctional audit behaviour has both (a) a significant direct effect, and (b) a significant indirect effect. The direct effect, which was previously examined in an inverse association, presented interesting findings when analysed in positive association. As there is no conclusive evidence found on the association between EP and dysfunctional behaviour in general, this study revealed that EP was positively associated with dysfunctional audit behaviour ($p < 0.01$).

The indirect effect involves links between EP-Turnover Intentions (TI)-dysfunctional audit behaviour (DB) and EP- organisational commitment (OC)-DB as hypothesised at H2c. Both indirect effects were found to be statistically significant ($p < 0.01$). These indirect effects may reflect the influence of TI and OC have on EP concerning dysfunctional audit behaviour. The present study was able to incorporate the effects of employee performance via turnover intentions and organisational commitment to the dysfunctional audit behaviour. This disturbing result is inconsistent with Donnelly et al. (2003) to the extent that the acceptance of dysfunctional behaviour is associated with low self-rated performance. An additional implication for the audit firm management and the profession is the need for having timely evaluation and inspection over high performers, besides the need for timely intervention for low performers. If higher performance is associated with higher acceptance of dysfunctional behaviour, retaining higher performers without taking appropriate corrective action seems likely to contribute to greater acceptance of dysfunctional behaviour within the firm as a whole. These results suggest that employee performance is one of the factors that contribute to dysfunctional audit behaviour.

6.0 Limitations

The present study makes a contribution in the area of dysfunctional audit behaviour by focusing on the combined effect of the group of individual factors. 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, the 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.

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