THE MEDIATING EFFECT OF JOB SATISFACTION ON THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND PREMATURE SIGN-OFF

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ABSTRACT

The objective of this study was to examine job satisfaction as a mediator of the relationship between personality traits (conscientiousness and neuroticism) and dysfunctional audit behaviour (premature sign-off). The data were collected using a random sampling method from internal auditors employed in Jordanian public shareholding companies (N=187). The findings from the analyses provide support for the hypothesis that job satisfaction mediates the relationship between personality traits and premature sign-offs. Specifically, the study found evidence that neuroticism yielded a strong negative relationship with job satisfaction and a positive relationship with premature sign-off. The study also found that conscientiousness had a positive relationship with job satisfaction and no direct relationship with premature sign-off.

Keywords: Conscientiousness, Neuroticism, Job Satisfaction, Premature Sign-off, Internal Auditors.

INTRODUCTION

Studies in the internal audit literature show that audit quality can be negatively affected by dysfunctional audit behaviours. However, due to the increasing significance of the functions of an internal audit and the scarce archival evidence on the quality of internal audits (Abbott et al., 2016), this study uses a substitute technique to capture the dimensions of audit quality. This will enable researchers to ask auditors questions about the undertaking of quality reducing acts, such as dysfunctional audit behaviours, as recommended by Svanström (2016). Further, according to O'Leary and Stewart (2007), despite the critical importance of ethics in the internal audit function, little was published in this area.

Studies on internal audits show that audit quality can be negatively affected by dysfunctional audit behaviours, especially premature sign-off, which is considered the top dysfunctional audit behaviour by internal auditors (Ling & Akers, 2010). Premature audit sign-offs directly affect audit quality and violate professional standards (Shapeero et al., 2003). Prior studies suggest that factors, such as job dissatisfaction, are antecedents for deviant behaviours (e.g. Tuna et al., 2016). Homans (1961) explained the relationship in light of the Social Exchange theory, saying that employees that have a high level of job dissatisfaction may have a tendency to get involved in deviant behaviours. Such deviant behaviour can also be explained by dis-satisfied employees who are not concerned about losing their jobs. In contrast, employees with a high level of job satisfaction are more likely to behave in a positive and constructive manner towards their work and their organisation (Bayarçelik & Findikli, 2016).
There are numerous studies that have looked at job satisfaction, but limited research exists on the predictors of job satisfaction. According to Sun et al. (2016), worker job satisfaction was studied in over 85 peer-reviewed meta-analysis studies. In order to improve job satisfaction, Hodge (2012) proposed that it is critical to identify and understand the factors that contribute to job dissatisfaction for internal audit employees so that they can be appropriately addressed. Previous research has identified a relationship between particular personality traits and the level of job satisfaction (Ayan & Kocacik, 2010; Judge, Heller & Mount, 2002; Schneider & Dachler, 1978; Spector, 1997). One research proposed that certain personalities or disposition is associated with job satisfaction, regardless of the type or nature of the work or the environment (Jex and Britt, 2014). In other words, some employees may be genetically predisposed to be positive or negative about their job. Spector (1997) stated that “Although many traits were shown to correlate significantly with job satisfaction, most research with personality has done little more than demonstrate relations without offering much theoretical explanation” (p. 51).

Numerous personality traits were tested in relation to job satisfaction. However, “There is confusion regarding which person variables should be examined. A formidable array of person variables was discussed as possible determinants of job satisfaction in the research literature” (Arvey et al., 1991; p. 377). In this study, the effects of particular personality traits on employee satisfaction and attitudes were conducted gradually, rather than all at once. Among the personality traits, neuroticism (e.g. Tanoff, 1999) and conscientiousness (e.g. Salgado, 1997; Judge et al. 1999) are major predictors of job satisfaction.

Therefore, this study aims to examine the possible effect of job satisfaction and personality traits (neuroticism and conscientiousness) on premature sign-off. It is expected that job satisfaction will yield a mediating relationship between conscientiousness, neuroticism, and premature sign-off. In this study, we look at behaviour as a result of situational and dispositional antecedents, which is similar to the interactions perspective (Diener et al., 1984; Endler & Edwards, 1985, 1986). Several studies have looked at the effect of individual differences on dysfunctional audit behaviour (Nor, 2001); however, this study will integrate the effects of both individual personality traits and the level of job satisfaction on dysfunctional audit behaviours. Several researchers have proposed that a better understanding of individual personality differences and work performance and satisfaction will be important for employee selection (Barrick, Mount, & Judge, 2001; Ilies et al., 2009; Mount, Ilies, & Johnson, 2006). Further research needs to be conducted to identify the links between job satisfaction and personality (disposition), context (situation) and behaviour (Judge & Zapata, 2015). Thus, for the purposes of this study, a theoretical model was developed that takes into consideration specific personality traits that can directly or indirectly affect dysfunctional audit behaviours, such as premature sign-off.

LITERATURE REVIEW AND HYPOTHESES

Personality Traits, Job Satisfaction and Premature Sign-off

Personality is one of the individual disposition factors. Personality can be described as the individual pattern of psychological processes arising from individual characteristics. Different individuals have different emotions, behaviours, feelings and patterns of thought (Thomas & Segal, 2006) and, hence, different personalities. Individuals possess a unique and dynamic set of characteristics that uniquely influences his or her motivations, cognitions and behaviours in different situations (Ryckman, 2012). Personality is an individual's characteristic
pattern of emotions, thought and behaviour, together with the psychological mechanisms, which arises from those patterns (Funder, 2001).

Research has demonstrated a link between certain personality traits and the level of job satisfaction. For example, individuals with positive attitudes tend to have a higher level of job satisfaction (Staw & Ross, 1985). Furthermore, some personality traits may have a greater effect on job satisfaction than others (Greenberg & Baron, 1993). The trait of conscientiousness is linked to a better job performance (Barrick & Mount, 1991). In contrast, individuals who have the neuroticism personality trait tend to have negative attitudes about their job and, hence, have a low level of job satisfaction (Rusting & Larsen, 1997; Uziel, 2006). According to Bruk-Lee et al. (2009), individuals who have neuroticism are less likely to be pleased with their current jobs. In general, Tokar and Subich (1997) evidenced that neuroticism plays a significant role in predicting job dissatisfaction level.

Individuals that have conscientious personality traits, in contrast, have high levels of job satisfaction, as they are willing to put in time and effort for their jobs (Bruk-Lee et al., 2009). Spector (1997) claims that, of all the personality traits, conscientiousness and neuroticism have the greatest effect on job satisfaction compared to other personality traits. Thus, the following hypotheses are proposed to be tested:

**H1a:** The personality trait of conscientiousness has a positive relationship with job satisfaction.

**H1b:** The personality trait of neuroticism has a negative relationship with job satisfaction.

Prior studies indicate that employees’ deviant behaviour is associated with particular personality attributes (Bennett & Robinson, 2003; Dalal, 2005; Douglas & Martinko, 2001; Mount, Ilies & Johnson, 2006; Salgado, 2002). Research on industrial and organisational psychology supports this statement by proposing that individual differences may be able to predict deviant behaviour in the workplace (Berry, Ones & Sackett, 2007). According to Spector (2011), “personality has the potential to affect the counterproductive work behavior process at every step. It can affect people’s perceptions and appraisal of the environment, their attributions for causes of events, their emotional responses and their ability to inhibit aggressive and counterproductive impulses” (p. 347). As we discuss in later paragraphs, we extend previous research by examining whether there are differential relationships between personality traits and dysfunctional audit behaviour (premature sign-off).

In general, auditors were found to differ from each other on a wide variety of characteristics, including the need for achievement (Street & Bishop, 1991), Type A behaviour pattern (Chadegani, Mohamed & Iskandar, 2015; Kelley & Margheim, 1990; McNair, 1987; Nor, 2011) and locus of control (Baldacchino et al., 2016; Bryan, Quirin & Donnelly, 2011; Chadegani et al., 2015; Paino, Smith & Ismail, 2012). Intuitively, internal auditors would seem to vary in the degree to which they intend to engage in dysfunctional behaviours due, in part, to their personality traits.

The personality trait of conscientiousness has an impact on deviant behaviour (Smithikrai, 2008). Researchers found that individuals who scored low on conscientiousness were more likely to participate in bad behaviour at work (Mount & Barrick, 1995). Moreover, destructive behaviours, including absenteeism and lying, are more likely to occur in the workplace by individuals with low conscientiousness (Salgado, 2003). Low conscientious employees are characterised as untrustworthy, dishonest and irresponsible and are not hard workers (Salgado, 2003; Wanek, Sackett & Ones, 2003). In contrast, high conscientious
individuals can be characterised as reliable, disciplined, and orderly (Roberts et al., 2005) and are typically high performing employees (Chandler, 2008). Thus, it is proposed that deviant behaviour is more likely to occur in individuals with low conscientiousness.

On the other hand, neuroticism is often discussed in reference to emotional stability. Those high in neuroticism are susceptible to being anxious, depressed, and overall negativity (Costa & McCrae, 1992; Goldberg, 1993). The absence of these negative tendencies is associated with high emotional stability (Evans & Rothbart, 2007; Ghimbuluț, Rațiu & Opre, 2012). In general, neuroticism is related to negative characteristics (Gale et al., 2001). Highly neurotic individuals are characterised by less confidence and are more likely to be stressed. This may cause these individuals to use their efforts to avoid failure rather than to work hard to be successful (Barrick, Mount & Li, 2013). High levels of neuroticism are also associated with a higher likelihood to cheat in an educational setting (Jackson et al., 2002).

Berry et al. (2007) found that interpersonal and workplace deviance has a strong relationship with high levels of neuroticism. Therefore, the internal auditors who experience negative emotions (i.e., those who are high in neuroticism) are likely to engage in disproportionate amounts of premature sign-offs. Thus, the following hypotheses are proposed to be tested:

\[ H2a: \text{The personality trait of conscientiousness has a negative relationship with premature sign-off.} \]

\[ H2b: \text{The personality trait of neuroticism has a positive relationship with premature sign-off.} \]

**Job Satisfaction and Premature Sign-Off**

Lock (1976) defines job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (p. 1304). Based on this definition, it can be assumed that individuals are more likely to participate in dysfunctional behaviours if they have a negative appraisal of their job or work. This study uses a motivational approach to explain this phenomenon. From a theoretical perspective, the social exchange theory may help explain the relationship between job satisfaction and dysfunctional behaviour (Gould, 1979; Levinson, 1965). According to the social exchange theory, individuals may feel upset or dissatisfied if they receive unfavourable treatment from their employer. Dissatisfied employees may exhibit destructive or negative behaviours in the workplace (Mount et al., 2006).

The deviant behaviour-job satisfaction relationship was investigated by many studies. Among them, Bennett and Robinson (2003) and Bowling (2010) revealed that job dissatisfaction was related to deviant behaviour, with bowling (2010) stating that dissatisfied employees have a greater tendency to involve themselves in dysfunctional behaviour to release stress. Pickett (2004) noted that, with so many roles to fill, many internal auditors become dissatisfied with their jobs, leading to unproductive environments. Such a negative correlation between the two variables was also supported by Srivastava (2012) and Dalal’s (2005) in their respective meta-analyses. Further, according to Tuna et al. (2016), lack of job satisfaction is the antecedent to deviant behaviours.

Westover (2012) examined a number of variables related to job satisfaction and their positive and negative outcomes. The study extended from 1989 to 2005. Westover (2012) defined job satisfaction as the level that an employee likes his job. According to this definition, high job satisfaction can bring about greater work quality, whereas low job satisfaction can result in low performance and low work quality. Lastly, Jidin, Lum and Monroe (2013) found that
Auditors who were more intrinsically satisfied with their jobs will sign-off on a more conservative inventory amount, compared with auditors who are less satisfied with their jobs. Based on the findings reported by prior studies, the following hypothesis is, thus, proposed:

\[ H3: \text{A high level of job satisfaction is related to decreased premature sign-offs.} \]

The Mediating effect of Job Satisfaction

From both a theoretical and empirical perspective, satisfaction has a mediating effect on behaviours in the workplace (Crede et al., 2007). In this study, it is proposed that job satisfaction is a contributing trait that can impact premature sign-offs. In particular, we look at the mediating effect that job satisfaction has on neuroticism and conscientiousness and dysfunctional audit behaviour. In simpler terms, personality traits like neuroticism and conscientiousness may predispose employees to participate in activities that result in job satisfaction or dissatisfaction. In turn, this can influence individuals to conduct dysfunctional behaviours. This is consistent with the social exchange theory.

However, other factors aside from personality traits can impact dysfunctional behaviours. We propose that the main factor is the level of employee job satisfaction. In this study, we suggest that there is a direct relationship between job satisfaction and premature sign-offs, were highly dissatisfied employees are more likely to participate in dysfunctional behaviour. To be specific, job satisfaction has a mediating effect on personality traits and premature sign-offs. Therefore, it is important to describe the association between personality traits and dysfunctional behaviours through the attitudes that individuals have about their work environment.

For job satisfaction to be a mediator, job satisfaction must first be related to personality characteristics. Judge et al. (2002) found evidence to support of the relationship between job satisfaction and neuroticism and conscientiousness. In addition, job satisfaction must be associated with dysfunctional behaviour, as proven in Jidin et al.’s (2013) study. On a final note, job satisfaction can be a significant indicator of the way employees perceive their jobs, and a predicting variable of work behaviours (e.g. organisational citizenship, absenteeism, and turnover). It can also be a partial mediator of the personality variables-dysfunctional behaviours relationship (Čiarnien, Kumpikait & Vienažindien, 2010). Thus, for this study, the following hypotheses will be tested:

\[ H4a: \text{Job satisfaction mediates the relationship between the personality trait of conscientiousness and premature sign-off.} \]

\[ H4b: \text{Job satisfaction mediates the relationship between the personality trait of neuroticism and premature sign-off.} \]

MODEL DEVELOPMENT

Figure 1 presents the theoretical framework with hypothesized paths to be tested. The hypothesized model is derived from a fusion of prior auditing, accounting, organizational behaviour and psychological research. The positioning of satisfaction as a mediator between personality traits (neuroticism and conscientiousness) and behavioural outcomes emanates from the Mount et al. (2006) model.
Our model examines the direct and indirect effects of both personality traits (neuroticism and conscientiousness) on PMSO as mediated by job satisfaction. The mediator constructs serve as a predictor and is expected to transmit the influence of the personality traits (neuroticism and conscientiousness) to PMSO. As a result, personality traits (neuroticism and conscientiousness) are predicted to primarily affect PMSO through their influence on job satisfaction and that any direct influence will be diminished by mediation effect.

**METHODOLOGY**

**Sample and Data Collection**

The data were collected using a survey questionnaire over the period of five months from Sep 2015 to Feb 2016. The sample frame included all Jordanian companies listed on the Amman Stock Exchange ASE in 2015, amounting to 248 in total. Of the 385 questionnaires distributed, only 187 responses from internal auditors were valid, resulting in a response rate of 48.5%. The response rate achieved in this study is considered to be acceptable (Spector, 1992; Williams, Gavin & Hartman, 2004).

**Measurement Scales**

The questionnaire survey was built based on previous literature. This research basically employed the currently validated scales of prior researches, such as Likert-type scales, with the range of response options from “1=strongly disagree” to “7=strongly agree”. The original items were in English translated into Arabic. Via a meticulous process, the research preserved validity by assuring that the questions were understood to prevent ambiguity.

**Personality traits**

In this study, 20 personality items were used to describe two traits of neuroticism and conscientiousness. **Neuroticism:** This study measured neuroticism using the 10 item scale for neuroticism. The measure includes items, such as “I seldom feel blue”, “I worry about things” (R), and “I change my mood a lot”. **Conscientiousness:** This was also measured using the 10 item. The measure includes items, such as “I like to be organised” “I leave my personal
belongings around” (R), and “I am excited with my work”. These items were part of the revised NEO Personality Inventory (NEO-PI-R) measure of the Big-Five Personality Traits developed by Costa and McCrae (1995).

**Job satisfaction**

Job satisfaction was gauged through the use of three questions adapted from the General Attitudes section of the Michigan Organisational Assessment Questionnaire (MOAQ), as developed by Cammann et al. (1983).

**Premature sign-off**

This study used 12 items, based on the Ling and Akers (2010) instrument, to measure premature sign-offs in the internal audit environment.

**Common Method Bias (Variance)**

In this study, data on the endogenous and exogenous variables were simultaneously collected utilising the same tool. Therefore, common method bias (CMB) could occur and potentially distort the gathered data. Podsakoff et al. (2003) referred to common method bias as the variance that is entirely attributable to the measurement procedure in comparison to the actual variables the measures represent. With this taken into consideration, our method employed the full collinearity test, as proposed by Rasoolimanesh et al. (2015). As stipulated by this method, CMB could be present if the values of VIF for each latent variable are much higher than one (Henseler, Hubona & Ray, 2016). The analysis shows the minimum collinearity in each series of predictors in the structural model considering that the values of all variance inflation factor (VIF) are much less than the threshold value (5). Values of VIF that are less than five means the problem of multicollinearity does not exist (Hair, Ringle & Sarstedt, 2011) (Appendix B).

**RESULTS**

The partial least squares (PLS) method for the structural equation modelling (SEM) was used in this study, using the statistical package SmartPLS 3 (Ringle, Wende & Becker, 2015). The PLS-SEM approach was chosen over other approaches, such as covariance-based statistics, for a number of reasons (Barroso, Carrión & Roldán, 2010; Chin & Newsted, 1999; Hair, Ringle & Sarstedt, 2013; Hair et al., 2011; Hair et al., 2016; Henseler, 2017; Reinartz, Haenlein & Henseler, 2009). First, this study is exploratory, meaning that the relationship between job satisfaction and PMSO is not proven yet, so discovering a new interconnection is possible. Second, the amount of data collected is relatively small with only 187 cases. PLS is possible with smaller sample sets. Third, PLS does not require that the data be normally distributed because it is a nonparametric method. Fourth, this research focuses on predicting a model (job satisfaction and PMSO by means of personality traits). Fifth, PLS-SEM is becoming increasingly useful in explaining complex behaviour research (Henseler et al., 2016), and is used to enhance the explanatory capacity of key target variables and their relationships (Hair et al., 2014). In the next section we discuss the results of the measurement model and analyse the structural model, according to a method proposed by Chin (1998), Marcoulides and Saunders (2006) and Hair et al. (2016).
**Measurement model**

Reliability, convergent validity and discriminant validity tests were conducted and the results confirm that all items used in the study are good indicators of the latent variables. The results reveal that all minimum requirements were met by the measurement models, as illustrated in Table 1. First, this study used a cut-off value of 0.70 significance for factor loadings ($t$-value $>1.96$ and $p$-value $<0.05$). The loadings of all items were above 0.778. A higher level of outer loading factors indicates a greater level of indicator reliability (Hair et al., 2013, 2011). Secondly, instead of using Cronbach’s alpha and Composite Reliability, Dijkstra-Henseler’s rho (rhoA), which provides a more accurate estimation of data consistency, is used and the values indicate that the items loaded on each construct were reliable (Ringle et al., 2017). Furthermore, all average variance extracted (AVE) values exceeded the threshold of 0.50, supporting the convergent validity of the construct measures (Henseler et al., 2016; Henseler, 2017).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Loadings</th>
<th>rho&lt;sub&gt;a&lt;/sub&gt;</th>
<th>AVE&lt;sub&gt;b&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personality Traits</strong></td>
<td></td>
<td></td>
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<tr>
<td>Conscientiousness</td>
<td>PCO1</td>
<td>0.879</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PCO2</td>
<td>0.868</td>
<td></td>
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<tr>
<td></td>
<td>PCO5</td>
<td>0.824</td>
<td>0.875</td>
<td>0.719</td>
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<tr>
<td></td>
<td>PCO8</td>
<td>0.819</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PNE1</td>
<td>0.845</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PNE2</td>
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<td>0.912</td>
<td>0.728</td>
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<tr>
<td></td>
<td>PNE3</td>
<td>0.845</td>
<td></td>
<td></td>
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<td></td>
<td>PNE7</td>
<td>0.896</td>
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<td></td>
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<td></td>
<td>PNE9</td>
<td>0.852</td>
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<td>Neuroticism</td>
<td>JS1</td>
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<td></td>
<td>JS2</td>
<td>0.878</td>
<td>0.848</td>
<td>0.764</td>
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<tr>
<td></td>
<td>JS3</td>
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<tr>
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<td>PMSO1</td>
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<tr>
<td></td>
<td>PMSO2</td>
<td>0.827</td>
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<td></td>
<td>PMSO4</td>
<td>0.832</td>
<td>0.907</td>
<td>0.676</td>
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<tr>
<td></td>
<td>PMSO5</td>
<td>0.794</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PMSO9</td>
<td>0.811</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PMSO10</td>
<td>0.778</td>
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</table>

Note: <sup>a</sup>rho<sub>A</sub>=The most important reliability measure for PLS (Dijkstra & Henseler, 2015)
<sup>b</sup>AVE=average variance extracted

Lastly, the confirmation of discriminant validity of the analysis is made by (1) comparing the AVE’s square root to the correlations (Table 2), (2) a cross loading analysis, and, most vitally, because (3) the heterotrait-monotrait ratio of correlations (HTMT)’s values (Hair et al., 2017; Henseler et al., 2015) are lower than the (conservative) threshold of 0.85 (Appendix A). According to Nitzl (2016), the HTMT should be used as a criterion to assess discriminant validity. As such, there is no issue with multi-collinearity in the outer model. Moreover, the standardized root mean square residual (SRMR) and other fit indices, namely the normed fit index (NFI) are used to test the model fit of the research model (Henseler et al., 2014). SRMR produces a value of 0.052, that reaffirms the PLS path model’s overall fit (Hair et al., 2014 and Henseler et al., 2014). The NFI results in values between 0 and 1. The closer the NFI to 1, the better the fit (Ringle et al., 2017), all the results of the saturated model indicate that the model has a good fit (Bentler & Bonett, 1980; Dijkstra & Henseler, 2015; Hair et al., 2016).
TABLE 2
HETEROTRAIT-MONOTRAIT RATIO (HTMT)

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. JS</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. PCO</td>
<td>0.445</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. PMSO</td>
<td>0.563</td>
<td>0.308</td>
<td></td>
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<tr>
<td>4. PNE</td>
<td>0.662</td>
<td>0.292</td>
<td>0.460</td>
<td></td>
</tr>
</tbody>
</table>

SRMR composite model=0.052
NFI normed fit index=0.878

Following the above analysis, for the final model, the reflective outer model was assessed for indicator reliability, internal consistency reliability and construct validity (convergent and discriminant). As was discussed, the model does not have any problem associated with these indicators.

Structural Model

The structural model's results analysis draws on Hair et al. (2014). The analysis evidenced minimum collinearity in every series of predictors in the structural model, since the values of all variance inflation factor (VIF) are way lower than the threshold value which is 5. VIF values are lower than five indicate that there is no problem of multicollinearity (Hair et al., 2011) (Appendix B). Furthermore, the $R^2$ values of job satisfaction (0.399) and premature sign-off (0.280), which supports the in-sample predictive power of the model (Sarstedt et al., 2014). Likewise, results from blindfolding with an omission distance of 7 yield $Q^2$ figures that are way beyond zero and positive value as recommended by Tenenhaus (1999) and therefore, the model's predictive relevance is supported in terms of out-of-sample prediction (Hair et al., 2012) (Table 3).

TABLE 3
SIGNIFICANT TESTING RESULTS OF THE STRUCTURAL MODEL PATH COEFFICIENTS

| Structural path | Path coefficient | T Statistics (|O/STDEV|) | P-Values | Conclusion |
|-----------------|------------------|----------------|----------|-----------|
| H1a: PCO -> JS | 0.250            | 3.878          | 0.000    | Supported |
| H1b: PNE -> JS | -0.519           | 7.738          | 0.000    | Supported |
| H2a: PCO -> PMSO| -0.092           | 1.138          | 0.255    | Not Supported |
| H2b: PNE -> PMSO| 0.196            | 2.379          | 0.017    | Supported |
| H3: JS -> PMSO | -0.346           | 4.291          | 0.000    | Supported |

$R^2$ Job Satisfaction=0.399; $Q^2$ Job Satisfaction=0.286
$R^2$ Premature Sign-Off=0.280; $Q^2$ Premature Sign-Off=0.172

Note: PCO: Conscientiousness Personality Trait, PNE=Neuroticism Personality Trait, JS=Job Satisfaction, PMSO=Premature Sign-Off

Applying the bootstrapping method in the assessment of path coefficients entails at least bootstrap sample of 5000 and the number of cases should equal the actual sample's number of observations (Hair et al., 2011). Moreover, the critical t-values for a two-tailed test are 1.65 (with a significance level of 10%), 1.96 (with a significance level of 5%) and 2.58 (with a significance
level of 1%). The empirical results are in agreement with most of the hypothesized path model relationships among the constructs, especially, the conscientiousness positively and significantly influence job satisfaction (H1a). Nevertheless, as not supported to the hypothesis, the conscientiousness personality trait has a negative relation with premature sign-offs, but not significant (Path= 0.092, t= 1.138) (H2a), while neuroticism personality trait has a significant negative correlation with job satisfaction (H1b), and significant positive correlation with premature sign-offs (H2b). Finally, job satisfaction negatively and significantly related to premature sign-offs among internal auditors (H3).

**Mediation Test**

So far, the direct effects of exogenous and endogenous latent variables (LVs) were discussed. But in this section, another aspect of the study can be argued. As was noted in previous studies that if the total effect (TE) of a LV on an endogenous variable would be larger than its direct effect (DE), then it could be concluded that the indirect (mediation) effect (IE) should be considered. In this regard, the results of the further analysis of the PLS-SEM about the indirect effect of the PCO and PNE on premature sign-off (PMSO) were provided (Table 4). For the more, mediation analysis could also play an important role in prediction model (Shmueli et al., 2016). To test the mediation hypotheses (H4a and H4b), we follow the procedures suggested by Nitzl, Roldan and Cepeda (2016) which suggested that mediating effect always exists when the indirect effect a × b is significant.

**TABLE 4**

<table>
<thead>
<tr>
<th>Test of Mediation by Bootstrapping Approach</th>
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<tr>
<td>Hypothesis</td>
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</table>
| PCO -> JS -> PMSO | 0.250 | -0.346 | -0.087 | 2.512** | -0.179 | (-0.167; -0.033) | 0.49 | P. M  
| PNE -> JS -> PMSO | -0.519 | -0.346 | 0.180 | 3.698* | 0.376 | (0.095; 0.284) | 048 | P. M  

Notes: *p<0.001; **p<0.05. * VAF: Variance accounted for, b partial mediation, PCO: Conscientiousness Personality Trait, PNE: Neuroticism Personality Trait, JS: Job Satisfaction, PMSO=Premature Sign-off

As Table 4 depicts, the indirect effect of PCO on PMSO is negative and significant (IE=-0.087 and t-value=2.512) at p<0.05 as well as interval confidence was different from zero (-0.167, -0.033). In addition, the indirect effect of PNE on PMSO is positive and significant (IE=0.180 and t-value=3.698) at p<0.001 as well as interval confidence was different from zero (0.095, 0.284). Moreover, VAF is to calculate the ratio of the indirect-to-total effect (Nitzl & Hirsch, 2016). This ratio is also known as the variance accounted for (VAF) value. VAF determine the extent to which the process of mediation explains the variance of the dependent variable. For a simple mediation, the proportion of mediation is defined as:

\[ VAF = \frac{a \times b}{a \times b + c'} \]
Hair et al. (2016) stated that if the VAF is less than 20%, one should conclude that nearly zero mediation occurs; a scenario in which the VAF is greater than 20% and lower than 80% could be classified as a typical partial mediation; and a VAF above 80% indicates a full mediation. In this study VAF values were greater than 20% and less than 80%. This means that JS considerably a partial mediator between PCO, PNE and PMSO.

**CONCLUSION**

Although prior research suggests that personality is associated with reduced audit quality (Nor, 2011), most studies focused on the target of the behaviour rather than the type of behaviour. We make a novel contribution by examining the relationships between personality traits with specific types of dysfunctional audit behaviours (PMSO) based on the social exchange theory. This suggests that job satisfaction is a mediator in this relationship, rather than the target. Our results indicate that internal auditors who possess high PCO tend to report higher levels of JS, but no direct relationship exists between PCO and PMSO, this result provide support for the hypothesized mediation model. Hence, part of the explanation for why PCO is not related to PMSO is because there is direct link whereby it is related to job satisfaction, which, in turn, is related to PMSO. The linkage was quite robust, as the results were consistently strong, and because that job satisfaction reflects no dispositional factors such as events and affect at work (Weiss et al., 1999) or other job influences (Mount et al., 2006). On the other hand, the internal auditors who possess high PNE tend to report lower levels of JS and higher levels of PMSO. Further, JS served as a partial mediator between PCO, PNE and PMSO. These results support the social exchange theory. In addition, the study confirms and extends connections made in the prior literature, specifically in terms of relationships between the antecedents of satisfaction and dysfunction outcomes. Our findings also add to the debate by confirming the central role of satisfaction as a mediating attribute in contributing to personality traits and premature sign-off relationship.

However, this study had a few limitations. Because this study looked at only one type of dysfunctional behaviour, it is difficult to generalise our findings to other types of dysfunctional behaviours. Second, we tested our hypotheses together to maintain an adequate sample size to parameters ratio. When the sample size is appropriate, future research may benefit from examining higher-order level relationships between personality traits factor and dysfunctional audit behaviour factors. Third, our study focused on JS as a mediator on the relationship between the traits of PCO, PNE and PMSO and demonstrated its significance as a source to explain the reasons behind unethical behaviours among internal auditors. A promising future direction could include exploring additional factors, such as perceived job burnout, job engagement and job stress, as mediators of the personality traits-PMSO relationships. Finally, future research could examine the traits as a moderator between stressors and dysfunctional audit behaviours.
APPENDIX

Heterotrait-Monotrait Ratio (HTMT)

APPENDIX A
HETEROTRAIT-MONOTRAIT RATIO (HTMT)

APPENDIX B
COLLINEARITY TEST

<table>
<thead>
<tr>
<th>Outer VIF values</th>
<th>Inner VIF values</th>
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<tbody>
<tr>
<td>JSS1 2.450</td>
<td>JS PCO PMSO PNE</td>
</tr>
<tr>
<td>JSS2 2.259</td>
<td>1.663</td>
</tr>
<tr>
<td>JSS3 1.741</td>
<td>PCO 1.071</td>
</tr>
<tr>
<td>PCO1 2.461</td>
<td>PMSO</td>
</tr>
<tr>
<td>PCO2 2.278</td>
<td>PNE 1.071</td>
</tr>
<tr>
<td>PCO5 1.921</td>
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</tr>
<tr>
<td>PCO8 2.020</td>
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</tr>
<tr>
<td>PNE1 2.634</td>
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</tr>
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</tr>
<tr>
<td>PSO2 2.430</td>
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<td>PSO4 2.332</td>
<td></td>
</tr>
<tr>
<td>PSO5 2.180</td>
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</tr>
</tbody>
</table>
ENDNOTES

1. Neuroticism personality represents “an individual’s emotion regulation and tendency to experience negative feelings; people with low levels of neuroticism are calm, secure, emotionally stable and self-confident” (Woods & Sofat, 2013; p. 2207).

2. Conscientiousness personality reflects “a person’s reliability and self-control; a highly conscientious person is hard-working, responsible, self-disciplined and persistent” (Woods & Sofat, 2013; p. 2207).

REFERENCES


