Exploring the Mediating Mechanisms in the Personality-Job Performance Relationship

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ABSTRACT
Meta-analytic studies have consistently reported that job performance has a significant relationship with personality traits. However, only a limited number of researches have been conducted to find the mechanisms that mediate this relationship. Thus, this study attempts to examine the direct role of personality traits as predictors of job performance and the indirect influence of achievement motivation as a mediating variable. Personality measurement tools are adapted from Cattell and achievement motivation from Cassidy and Lynn. Job performance indicator is obtained from annual job performance evaluations. All three personality traits are integrated into a model that predicts job performance and achievement motivation. The model is tested using structural equation modelling (SEM) with a sample of 450 public administrative officers. Results of the model show that it has goodness of fit and achievement motivation is found to fully mediate the relationship between conscientiousness and agreeableness toward job performance. However, emotional stability directly influences job performance. All the predictors contribute 24% of the variance in job performance. Implication of the finding is that emotional stability and achievement motivation can be the essential predictors in predicting job performance of future candidates followed by agreeableness and conscientiousness.

Keywords: Personality, achievement motivation, job performance

INTRODUCTION
The individual difference model of job performance states that personality and motivation are the main factors that influence job performance (Campbell et
Findings from meta-analysis studies on the five factor model show that personality factors like conscientiousness, emotional stability and agreeableness have significant correlations with job performance (Barrick & Mount, 1991) and motivation (Judge & Ilies, 2002). Other studies show that motivation acts as an important mediator in the relationship between personality and job performance (Barrick et al., 2002; Judge et al., 2007; Hart et al., 2007). Nevertheless, only a few studies have been conducted to identify achievement motivation as a mediator in the relationship between personality and job performance (Barrick et al., 2001; Barrick & Mount, 2005; Rothstein & Goffin, 2006). The current study aims to explore the mechanism of achievement motivation as a mediator in the relationship between conscientiousness, emotional stability and agreeableness toward job performance.

In general, conscientiousness is a factor that measures responsibility, discipline and order; emotional stability measures individual skill in controlling stress, anxiety and depression; agreeableness measures the likelihood that one is receptive, good-natured and relates to people with respect and honour. In relation to that, the interrelationship between conscientiousness, emotional stability and agreeableness develops workers who function well in an organization (Barrick et al., 2001).


OVERVIEW OF MEDIATING MECHANISMS

Theoretically, achievement motivation is the determining component as well as the personality factors of conscientiousness, emotional stability and agreeableness. The three personality factors are identified as the predictors of job performance as suggested by Motowidlo et al.’s (1997) individual difference theory on task performance and contextual performance. Motowidlo et al. (1997) states that the importance of personality influences job performance. Therefore, personality does not influence job performance without having motivation as its mediator. There are studies showing individuals with high achievement motivation also have intrinsic motivation rather than extrinsic motivation (Koestner & McClelland, 1990). Conscientiousness, emotional stability and agreeableness are found to have a significant relationship with
intrinsically achievement motivation rather than with extrinsic motivation (Hart et al., 2007). A study by Barrick et al. (2002) shows a consistent result whereby they also discover that the three personality factors are correlated directly with job performance and partially correlated with motivation as its mediator. Story et al.’s (2009) study shows that intrinsic achievement motivation correlated positively with achievement expectation, cognitive need and self-reinforcement. While, extrinsic achievement motivation is only correlated with general achievement.

Proposed Model

The current study proposes conceptual framework consisting of four variables; conscientiousness, emotional stability, agreeableness, achievement motivation and job performance. These are shown in Fig. 1. The conceptual framework suggests conscientiousness, emotional stability and agreeableness as predictors and independent variables. Researches have shown that these three Big Five traits yield the strongest and most consistent direct predictors of job performance (Barrick et al., 2001; Cattell, 1943; Costa & McCrae, 1988; Digman, 1990; Goldberg, 1981; Hough & Oswald, 2000; Rothstein & Goffin, 2006; Salgado, 2003). Achievement motivation acts as the mediator variable, while job performance is the dependent variable. A few studies show that motivation plays the important role of a mediator in the relationship between personality and job performance (Barrick et al., 2002; Judge et al., 2007; Hart et al., 2007). However, the studies showing this fact are still scarce (Barrick et al., 2001; Rothstein & Goffin, 2006). As a whole, the proposed conceptual framework presents the interrelation between conscientiousness, emotional stability and agreeableness that

Fig. 1: Proposed model
may influence job performance directly and partially when the relationship is mediated by achievement motivation.

**Conscientiousness, Emotional Stability, Agreeableness and Motivation Achievement**

Musson et al.'s (2004) study shows that conscientiousness is correlated positively with mastery, an intrinsic achievement motivation; work ethics, an intrinsic achievement motivation; while, neuroticism, a negative emotional stability is correlated negatively with mastery. A study conducted by Paspalanov (1984) shows that anxiety is correlated positively with achievement motivation. Gellatly (1996) also finds an influence of conscientiousness on the effort to perfection, namely achievement. Based on the results, he concludes that conscientiousness may influence achievement motivation directly. Nevertheless, findings from Gellatly's (1996) study show that emotional stability and agreeableness do not influence perfection (Achievement Motivation). A study by Hart et al. (2007) using the achievement motivation questionnaire, CLAM by Cassidy and Lynn (1989), and the Big Five inventory (John & Srivastava 1999) show that agreeableness and conscientiousness are correlated positively with intrinsic achievement motivation. While, anxiety (Negative Emotional Stability) has a negative correlation with intrinsic achievement.

**Conscientiousness, Emotional Stability, Agreeableness, and Job Performance**

Results from meta-analytic study show that conscientiousness, emotional stability and agreeableness make a significant reliable prediction towards job performance for all types of job (Barrick & Mount, 1991; Barrick et al., 2001; Hurtz & Donovan, 2000; Salgado, 2003; Hogan & Ones, 1997). A study conducted in Hong Kong also shows that conscientiousness, emotional stability and agreeableness predict job performance significantly (Tyler & Newcombe, 2006). However, Jiang et al.'s (2009) study in China shows that only conscientiousness has a significant relationship with job performance. In the local context, Edham (2009), Fatimah Wati et al. (2011), and Fatimah Wati (2012), show that conscientiousness and emotional stability have positive relationships with job performance. In contrast, agreeableness shows a different result. Edham (2009) finds that agreeableness is correlated positively with job performance; whereas, Fatimah Wati (2009) finds a negative relationship between these two variables. Generally, previous studies that have shown a reliable prediction among these three personality factors still do not consistently predict job performance. According to Barrick et al. (2001), Barrick et al. (2005), and Rothstein and Goffin (2006), the reliability of an inconsistent prediction among the three personality factors towards job performance is influenced by a mediator variable effect. Despite the findings, only few studies have
been conducted to support the existence of a mediator or mechanism between personality and job performance.

**METHOD AND MATERIAL**

*Respondents*

In this study, data are collected from 450 middle level civil servant officers from a training institution in Malaysia. Among these participants, 269 are males, and 154 are females. The average age of the participants is 40.85 years and the average work experience is 18.25 years. The ethnic breakdown of the respondents is 390 Malays, 35 Chinese, 18 Indians and 7 from other ethnicities. The average of having higher education is 86.9%.

*Instruments*

The standardized questionnaires used are as follows:


   The five global scales give an overview of an individual’s personality makeup at a broad level of functioning. While, the more specific primary scales provide an in-depth picture of the individual’s unique personality dynamic (Cattell & Schuerger, 2003). However, for the purpose of this study only three global scales are chosen; conscientiousness and emotional stability. The primary trait of conscientiousness consisting of rule-consciousness (G+), perfectionism (Q+), liveliness (F-) and abstractedness (M-)

   The primary trait of emotional stability consisting of emotional stability (C-), vigilance (L+), apprehension (O+) and tension (Q4+). In addition, the primary trait of agreeableness (-ve) consists of dominance (E), social boldness (H) and openness to change (Q1). The 16PF is translated (Fatimah Wati & Arifin 2010) into Bahasa Melayu using the back translation method. Participants respond to the 16PF items using a three-point Likert scale. Alpha does the estimation for the Bahasa Melayu version based on 450 adults are liveliness (F) = 0.71, rule-consciousness (G) = 0.86, abstractness (M) = 0.81, perfectionism (Q3) = 0.86, emotionality stability (C) = 0.74, vigilance (L) = 0.76, apprehension (O) = 0.70, tension (Q4) = 0.70, dominance (E) = 0.71, social boldness (H) = 0.80 and openness to change (Q1) = 0.70.

2. Job performance measure is based on the annual performance evaluation report received from the employer in the form of an overall job performance score, for example 70, 80, or 90.

3. Cassidy and Lynn Achievement Motivation (CLAM)

   The CLAM is translated (Fatimah Wati, 2012) into Bahasa Melayu using the back translation method. Motivation achievement is assessed with the well-validated inventory developed by Cassidy and Lynn (1989). The CLAM assesses six components. However, only three components are used for
the purpose of this study. The three components referring to the intrinsic achievement motivation factors are work ethics, excellence and mastery (Cassidy & Lynn, 1989).

Data Analysis
Data is analyzed using a structural equation modeling (SEM) approach as recommended by Hair et al. (2006).

RESULTS
Table 1 and Fig.2 show five matching indexes: CMIN/DF = 1.651, GFI=.963, TLI=.983, CFI=.988 and RMSEA= 0.038. These results reveal that there is a good match of the model (good fit) with the data comprising of 450 civil servants, even though the Chi Square value of the Goodness-of-Fit shows that the model does not fit with the data \( \chi^2 \) (N=450, df=98) =120.489, p < 0.05. All of the goodness-of-fit indices of the model also meet the recommended values as suggested by Hair et al. (2006).

Table 2 only shows emotional stability (-ve) (\( \beta = -.51, \ C.R. = -2.67, \ p = .008 \)) and achievement motivation (\( \beta = .39, \ C.R. = 5.73, \ p = .001 \)) influencing job performance directly. The other two personality factors, namely conscientiousness (\( \beta = .44, \ C.R. = 1.61, \ p = .10 \)) and agreeableness (-ve) do not influence job performance directly (\( \beta = .24, \ C.R. = -1.31, \ p = .19 \)). Only agreeableness (-ve) influences achievement motivation (\( \beta = .55, \ C.R. = 2.34, \ p = .19 \)). While, emotional stability (-ve) (\( \beta = .02, \ C.R. = .12, \ p = .89 \)) and conscientiousness (\( \beta = -.44, \ C.R. = -1.32, \ p = .18 \)) do not influence achievement motivation directly. The summary of the parameter approximations for the SEM model in the standard form are shown in Fig.2.

A detailed observation of the partial influence between the variables reveals that there is a partial influence of conscientiousness on job performance (-.44 x .39 = .17) and agreeableness on job performance (-ve) (-.55 x .39 = .21) via achievement motivation. While, emotional stability (-ve) does not have a partial influence on job performance (.02 x .39 = .03). It is due to partial influence of less than 0.08 as suggested by Hair et.al (2006) is considered to have no important effect. Table 3 shows the direct relationship and partial relationship. The results show that even though conscientiousness and agreeableness

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Recommended Value</th>
<th>Observed Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square/ degree of freedom</td>
<td>&gt; 0.05</td>
<td>120.489</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>&lt; 5.0</td>
<td>1.651</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.963</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.90</td>
<td>0.983</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.90</td>
<td>0.988</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.06 or ≤ 0.08</td>
<td>0.038</td>
</tr>
</tbody>
</table>

TABLE 1
Results of Goodness-of-Fit Index
TABLE 2
Coefficient For The Paths In The SEM Model

<table>
<thead>
<tr>
<th>Standardized regression coefficient</th>
<th>β</th>
<th>C.R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Achievement motivation Job Performance</td>
<td>.39</td>
<td>5.73</td>
<td>.001*</td>
</tr>
<tr>
<td>2. Conscientiousness Job Performance</td>
<td>.44</td>
<td>1.61</td>
<td>.10</td>
</tr>
<tr>
<td>3. Emotional stability(-ve) Job Performance</td>
<td>-.51</td>
<td>-2.67</td>
<td>.008*</td>
</tr>
<tr>
<td>4. Agreeableness(-ve) Job Performance</td>
<td>-.24</td>
<td>-1.31</td>
<td>.19</td>
</tr>
<tr>
<td>5. Conscientiousness Achievement motivation</td>
<td>-.44</td>
<td>-1.32</td>
<td>.18</td>
</tr>
<tr>
<td>6. Emotional stability(-ve) Achievement motivation</td>
<td>.02</td>
<td>.12</td>
<td>.89</td>
</tr>
<tr>
<td>7. Agreeableness(-ve) Achievement motivation</td>
<td>.55</td>
<td>2.34</td>
<td>.019*</td>
</tr>
</tbody>
</table>

β = standardized Beta (standardized regression coefficient)
* = significant value at 0.05

Fig.2: Parameter Estimates In The Standardized Form For SEM Model

TABLE 3
Coefficient For The Paths In The SEM Model

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Mediating Variables</th>
<th>Dependent Variables</th>
<th>Indirect effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientiousness</td>
<td>Achievement motivation</td>
<td>Job Performance</td>
<td>-.44 x .39 = -.17</td>
</tr>
<tr>
<td>Emotional stability (-ve)</td>
<td>Achievement motivation</td>
<td>Job Performance</td>
<td>.02 x .39 = .007</td>
</tr>
<tr>
<td>Agreeableness (-ve)</td>
<td>Achievement motivation</td>
<td>Job Performance</td>
<td>.55 x .39 = .21</td>
</tr>
</tbody>
</table>

(-ve) do not have a direct influence on job performance, these two variables cannot be disregarded since they do have a partial influence on job performance.

As a whole, the evaluation of the predictor of job performance conceptual model using the SEM analysis shows that emotional stability and achievement motivation directly influence the job performance of civil servant officers in the current study. The partial influence of conscientiousness and agreeableness are found through achievement motivation. Conscientiousness and agreeableness predict 7% of the variance in achievement motivation. Furthermore, the contribution of variance towards job performance increases to 24% when these two factors are combined with emotional stability and achievement motivation. Acheivement motivation functions as the full mediator in the influence of conscientiousness and agreeableness on job performance except on emotional stability.

DISCUSSION
Generally, the results of the current study show that achievement motivation is an important mechanism in the relationship between agreeableness and conscientiousness with job performance. These results confirm Motowidlo et al.’s (1997) individual difference in job performance model. They are also consistent with Barrick et al.’s (2002) and Story et al.’s (2009) findings. Specifically, the results suggest that individual with low agreeableness traits such as dominance, bravery and openness are related with high achievement motivation. Subsequently, it increases job performance. In contrast, individuals with high agreeableness traits like concede to defeat, shy, timid, and traditional or conventional are related with low achievement motivation. Subsequently, it decreases job performance. The findings of this study support McClelland’s (1997) achievement motivation theory and Cattell et al.’s (1993) personality trait theory. According to Koestner and McClelland (1990) individuals with high achievement motivation tend to choose challenging goals, jobs oriented to achievement, dare to take risks, prefer feedback towards achievement and possess future goals.

Nevertheless, high conscientiousness traits such as serious, obedient, objective thinking and order are related with low achievement motivation. This may lead to low job performance. Whereas, low conscientiousness traits such as cheerful, assertive, abstract thinking and imaginative are related with high achievement motivation. These findings are inconsistent with results of other western researches (Barrick et al., 2003; Kanfer, 1991; Judge & Ilies, 2002; Musson et al., 2004) that prove high conscientiousness influences high achievement motivation.

The current findings suggest that individuals with positive emotional stability and calmness are those with high achievement motivation even though they do not like rules, obedience, abstract thinking and spontaneity. As comparison, individuals with emotive reactive and stress,
do not have high achievement motivation even though they possess order, obedience, objective thinking and seriousness at work. Results also show that intrapersonal factors influence achievement motivation more than social factors. The current findings support achievement motivation theory which states that an individual’s achievement motivation is more influenced by internal locus of control than external locus of control (Koestner & McClelland, 1990).

The influence of reactive emotion and tension towards high conscientiousness in the personality model of civil servant officers also explain why high conscientiousness influences low achievement motivation. Cattell et al.’s (1993) personality trait theory explains the influence of reactive emotion (C-) on high conscientiousness that may cause one to have a low tolerance for disappointment, suffer neurotic exhaustion, disturbance, agitation, feelings of dissatisfaction, and regular neurotic symptoms such as phobia, sleep disturbance, and psychosomatic etc. The influence of tension (Q4) on conscientiousness also causes tension and disturbed feelings, restlessness and impatience. The study shows that individuals who are incompetent in controlling emotion have low concentration ability and susceptible to stress at work. Their achievement motivation decreases when they are in a stressful situation (Barling & Boswell, 1995). As a result, they become less motivated. Civil servant officers with high conscientiousness are related with low achievement motivation.

The influence of high order trait (Q3) and objective thinking (M-) on conscientiousness also affect low achievement motivation. High order trait, objective thinking and orientation to problem solving are less suitable for leaders (Cattell et al., 1993; Digman, 1990). Individuals with high order trait have strong control over emotions and general behavior: sociable, perceptive, careful and very concerned about social reputation. Based on the discussion, the direct influence of conscientiousness on achievement motivation is an interesting finding. This finding explains why there is an influence of culture in the job performance predictor model for the civil servants.

In addition, achievement motivation is an important mechanism between personality and job performance. The results illustrate that emotional stability influences job performance directly; it stands independently in influencing job performance without going through achievement motivation as its mediator. The current results are consistent with several western meta-analytic studies (Barrick et al., 1991, 2001; Tett et al., 1991; Salgado, 1997, 2003). Studies conducted in the Asian region also show similar results. Many of these Asian studies show that emotional stability is the most significant predictor of job performance when compared with conscientiousness. Workers in Hong Kong also have the same perception on the subject of relationship between job performance and personality traits in the organization context in Hong Kong (Tyler & Newcombe, 2006).

Therefore, the implication of the findings is that achievement motivation
can be an essential determinant to assess candidates in personnel decision making. Emotional stability can be the best predictor and the most dominant in predicting the job performance of future candidates. It is followed by agreeableness and conscientiousness. Future researches should test this model further through analyzing the mechanisms of these variables for different types of job.

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