

Personality, Grit and Organizational Citizenship Behavior at Vocational Higher Education: The Mediating Role of Job Involvement

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Abstract

The purpose of this paper is to investigate the influence of personality and grit on the Organizational Citizenship Behavior (OCB) of lecturer, and if this relationship is valid whether this relationship is mediated by job involvement or not. A case study research with quantitative approach was used in this study. The sample size consists of 132 of lecturers at the industrial vocational higher education of the ministry of industry in Indonesia were selected by using multi-stage sampling procedure. Data were collected by using questionnaire at a single point in time and analyzed with SEM-PLS. The findings revealed personality and grit were the predictors for the Organizational Citizenship Behavior of lecturers and job involvement mediated partially the causal relationship between personality and grit to OCB, although it was in the indirect effect with enough strength. The finding had contributed for ensuring the position of job involvement as a mediating variable in the relationship between personality and grit on OCB, which in the previous studies were not explicitly placed as a mediating variable.

Key words: Organizational Citizenship Behavior, Personality, Grit, Job Involvement, Higher Education.

Introduction

Theoretically, the concept of extra-role behavior is reflected in what is called the Organizational Citizenship Behavior (OCB). Schnake, Cochran, & Dumler (1995) described OCB as functional, extra-role, pro-social behavior, directed at individuals, group and organization. The issue of extra-role behavior of the lecturers in higher education is interesting because university is a non-profit organization that requires the extra-role for ensuring its sustainability. Although regulations have clearly regulated the lecturer performance, these rules were only limited to the

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in-role behavior. There was no reward or punishment for the lecturers who do not apply this extra-role, even though OCB contributed in creating the sustainability of organization.

There are several potential factors that determine OCB achievement. Personality, grit and job involvement were some factors originating from within the individual itself that affected OCB. Organ (1994) concluded that personality was not the best predictor of OCB, but studies afterwards found a direct influence of personality on OCB of employees (Neuman & Kickul, 1998; Barrick, Parks and Mount, 2005; Elanain, 2007; Patki & Abhyankar, 2016). Although very limited, Mahdiun, Ghahramani and Sharif (2010) and Leephaijaroen (2016) had elaborated the relationship between personality and OCB in higher education and recommended a challenge to test more further.

Furthermore, one non-cognitive construct that received widespread attention over the past decade, which is thought to be the important predictors of academic performance and affect the achievement of the extra role, is grit. Duckworth and Gross (2014) stated that grit was a key to success in various aspects of life and Zhou (2016) revealed grit as the non-cognitive aspects that influenced the outcome of a person's job. Datu, Valdez, & Ronnel B. King (2015) also found that the perseverance of effort was positively predicted towards behavioral. The debate over the grit, whether as a dimension of personality or a new approach in positive psychology (Rimfeld *et al.*, 2016; Ferrell, 2017), provided a space to elaborate more further. Although in previous studies, the concept about grit was more popular applied to the case of students (Duckworth & Quinn, 2009; Karakus, 2018; Von Culin, Tsukayama and Duckworth, 2014), grit was also predicted according to the lecturers in higher education.

Although empirically, the direct relationship between personality and grit to OCB has been examined in a number of previous studies, but it still needs further elaboration especially for cases of lecturers in higher education. The direct relationship between personality and grit to OCB was also problematic because of the consideration of the role of job involvement in this relationship, which in the previous study had not been clearly quantified. The personality and grit were predicted to be able to influence OCB, but the effect was reflected earlier in job involvement, which then affected the performance of OCB. The position of job involvement as a mediating variable was built with based on the relationship between personality and the job involvement (Liao and Lee, 2009; Eswaran, Islam and Yusuf, 2011), the relationship between grit and job involvement (Suzuki, Tamesue, Asahi, & Ishikawa, 2015), the relationship between grit and OCB (Zhou, 2016;

Datu et al., 2015) and also the relationship between the job involvement and OCB (Nwibere, 2014; Ueda, 2014).

The purpose of this paper was to investigate the influence of personality and grit on OCB and to examine the position of job involvement as a mediating variable in the relationship between personality and grit to OCB. This study tried to test the implementation of this causal relationship for lecturers in universities, as a unit of analysis that required an extra role in the development of internal processes in universities. The choice of unit of analysis on vocational higher education lecturers was an interesting case to be analyzed further because vocational higher education was identical to the learning process that prioritizes practical expertise. The work demands of the lecturer with the learning process that prioritizes practice rather than theory, requires the extra role and high job involvement. Although most of the previous empirical studies analyzed OCB in business, the decision to choose vocational higher education lecturers as an unit of analysis remained supported by theories and previous empirical studies. Thus, this study offered a critical model of the causal relationship between personality and grit to OCB with job involvement as a mediating variable for lecturers in vocational higher education. To analyze the role of job involvement in a causal relationship between personality and grit to OCB of lecturers, the following research questions were raised to guide the study:

1. What is the direct influence between personality and grit to OCB?
2. How much the effect of job involvement as mediating variable in the relationship between personality and grit to OCB of lecturers.

Literature Review

Organizational Citizenship Behavior (OCB)

Katz (1964) in his study of the motivational basis of organizational behavior, discussed about the types of behavior required for effective organizational functioning if an organization wants to survive and function effectively. It must requires not one, but several different types of behavior from most of its members, and the motivation for these types of behavior may also be different. Based on this, then it was known about the existence of "in role behavior" which were formally rewarded by organizational reward systems and "extra role behavior" which were not rewarded by the official reward system but had implications for enhancing the organizational effectiveness.

Extra-role behavior or popular as OCB is defined as anything that employees choose to do, spontaneously and of their own accord, which often lies outside of their specified contractual obligations (Organ, 1997). Schnake et al., (1995) also described OCB as functional, extra-role, pro-social behavior, directed at individuals, group and organization. OCB is implemented in the aspects of altruism, conscientiousness, sportsmanship, courtesy and civic virtue.

The empirical previous studies of OCB were more popular in business institution than universities. Although initially OCB was considered to help to maximize organizational performance of firms, but the key factor of OCB was achieving productivity and performance in any organization. OCB has been described as necessary for growth, success, effectiveness and productivity of any organization. The success of an educational system depends on the involvement, the effort and also the contribution of academic staff (Fauziah & Kamaruzaman, 2009). Eyupoglu (2016) concluded that OCB did exist in academic staff and it was important for the university to be knowledgeable of the factors that will affect academic staff extra roles because higher educational institutions are organizations where OCB is an important factor for institutions if they want to survive.

Personality and OCB

As an important determinant, personality had been examined in several previous studies as predictors of OCB in higher education (Mahdiun et al., 2010; Leephaijaroen, 2016). Personality is considered as a determining factor responsible for explaining people's behavior across different situations, because the personality traits refer to enduring patterns of thought, emotion, and behavior that are not likely to change over time (Funder, 2001). Personality refers to the way of thinking, the way of feeling and a different way of acting, which lasts a long time, and characterizes a person's response to a life situation (McKenna, 2006; Passer and Smith, 2007; Constantine, 2017). Greenberg and Baron (2008) stated that personality consisting of conscientiousness, extraversion, agreeableness, emotional stability and openness to experience.

Organ (1994) which intensely examined OCB in institutions concluded that personality was not the best predictor for OCB, but several studies afterwards found a direct influence of personality on OCB of employees (Neuman and Kickul, 1998; Elanain, 2007; Ilies, Fulmer, Spitzmuller, & Johnson, 2009; Patki and Abhyankar, 2016). Barrick, Parks and Mount (2005) had also described emotional stability as a key dispositional determinant of social behavior.

Although the studies of OCB at universities were very limited, Mahdiun, Ghahramani and Sharif (2010) concluded that Tehran university staff showed a positive relationship between OCB and personality which included attitudes of agreeableness, conscientiousness, openness, and extraversion, but the relationship between neuroticism and OCB was negative. Leephaijaroen (2016) had also elaborated the relationship between personality and OCB on staff and employees in universities and the findings revealed that the components of the big-five personality traits which significantly affected OCB were agreeable personality, conscientious personality and emotionally-stable personality.

Grit and OCB

One of non-cognitive construct that received widespread attention over the past decade, which is thought to be the important predictors of academic performance or job performance is grit. Culin, Tsukayama and Duckworth (2014) defined grit as a psychological variable based on a positive psychology, which prioritized the persistence as an indicator of long-term success. Duckworth, Peterson, Matthews and Kelly (2007) introduced the grit as a consistency of interest and perseverance of effort. Consistency of interest refers to the ability to maintain an interest in a goal in the long term and perseverance of effort refers to the ability to complete a work or business that is being done without fear in facing challenges and obstruction. Some researchers concluded that the construct of grit was similar to personality (Ferrell, 2017; Rimfeld *et al.*, 2016), but the initiator claimed that grit was different of the personality, although related to self control and conscientiousness. People with higher grit levels tend to have better performance than those with lower grit (Duckworth, Peterson, Matthews, & Kelly, 2007).

Although Peleașă (2018) and Ion, Mindu & Gorbănescu (2017) concluded that it was difficult to consider grit as an independent self-constructed concept in predicting OCB, but Zhou (2016) revealed grit as the non cognitive aspect that influenced the outcome of person's job. Datu et al., (2015) also found that the perseverance of effort was positively predicted towards behavioral and emotional engagement for students in college. Inconsistent findings between grit and OCB provide a space for researchers in organizational psychology to elaborate on the relationship between these two variables.

Job Involvement, Personality, Grit and OCB

In its development, organizational psychology continues to look for personality traits that affect individual performance in organizations both in business and non-profit organizations. One of the intermediary variables in the relationship between personality and organizational behavior is job involvement. It is expected that staff who are high in dimensions of personality would be high in job involvement and may be more multi-tasking in carrying out their responsibilities as lecturers. Job involvement was considered to be a key factor influencing the organizational outcomes (Lawler, 1986), and over the past few decades has become the major construct in the field of psychology and management (Lodahl and Kejner, 1965; Lawler, 1986; Kanungo, 1982; Kahn, 1990; Pisheh, 2011; Carmeli, 2005). Job involvement defined as the degree to which a person is identified as psychologically with his work, or the importance of work in his total self-image (Lodahl and Kejner, 1965) or commitment to his work (Kanungo, 1982). Furthermore, Robbins and Judge (2008) interpreted job involvement as the degree to which people are known from their jobs, actively participate in them, and consider their achievements important for self-esteem.

Actually, some researchers have analyzed the relationship between job involvement and OCB in business organizations (Cappelli & Rogovsky, 1998; Gheisari, Sheikhy and Derakhshan, 2014). Several other researchers have also tried to elaborate the relationship between job involvement and OCB in internal processes in universities. Ueda (2014) concluded job involvement had a positive effect on the OCB for professors and clerical workers at private universities in Japan. Nwibere (2014) had also examined the relationship between job involvement and OCB of academic staff in universities. Academic staffs who are involved in their jobs, for example, are likely to be satisfied with their jobs, become committed to their organization then show more OCB in their work.

Job involvement as an attitude initiated naturally from within an individual. If it is there then someone will give the best performance and contribution on their job (Paullay, Alliger, & Stone-Romero, 1994). Based on this concept, personality and grit are two important things that affect the job involvement of employees in the organization. Liao and Lee (2009) found that extroversion, openness, agreeableness, and conscientiousness were related positively to job involvement, whereas the neuroticism was negatively related to employee's job involvement.

Eswaran, Islam, and Yusuf (2011) found a relationship between the big five personality and job involvement, although they were not very strong.

Since grit is still a newly developed measure, there are only several previous researches that are still in the investigation phase which can be used as a reference in looking at the relationship of grit with job involvement. Suzuki *et al.*, (2015) concluded that the gritty people were likely to engage positively in their work. This study identified grit as a strong predictor for work performance and the openness to experience was confirmed as having a positive association with grit. Datu *et al.*, (2015) also concluded that although the concept of grit consists of two dimensions which include perseverance of effort and consistency of interests, only the perseverance of effort that affected positively both behavioral and emotional engagement. Based on the search for this literature, there was an opportunity to elaborate further about the role of job involvement as a mediating variable in the relationship between personality, grit and OCB.

Method

Research Design

This study used a quantitative approach with causal design and it was conducted through a survey of lecturer in higher education. The study examined the influence of personality and grit on OCB and to test the position of job involvement as a mediating variable in the relationship between personality and grit to OCB. The study adopted a causality model of Structural Equation Modeling - Partial Least Squares (SEM-PLS) with a single mediator.

Population, Sample and Sampling Techniques

The target population in this study was 475 lecturers at eight polytechnics of the ministry of industry in Indonesia, consisting of Polytechnic of PTKI Medan, Polytechnic of ATI Padang, Polytechnic of APP Jakarta, Polytechnic of STMI Jakarta, Polytechnic of AKA Bogor, Polytechnic of STTT Bandung, Polytechnic of ATK Yogyakarta and Polytechnic of ATI Makassar. The sample size for study comprise of 132 of lecturers selected using multi-stage sampling procedure. For the first stage, eight polytechnics were chosen purposively according to the research needs. These polytechnics selected were pilot polytechnics in the development of vocational higher education in Indonesia. For the second stage, the lecturers were selected with the criteria of lecturers without additional assignments in structural positions and at this stage there

were 132 lecturers. In the third stage, the determination of the number of samples for each polytechnic was carried out proportionally. There were 14 participants from Polytechnic of PTKI Medan, 15 participants from Polytechnic of ATI Padang, 17 participants from Polytechnic of APP Jakarta, 19 participants from Polytechnic of STMI Jakarta, 16 participants from Polytechnic of AKA Bogor, 17 participants from Polytechnic of STTT Bandung, 16 participants from Polytechnic of ATK Yogyakarta and 17 participants from Polytechnic of ATI Makassar.

Variables and Measurements

The endogenous variable in this research was OCB and the exogenous variables were personality and grit. Job involvement was placed as a mediating variable in the model. To measure these variables, to respondents were asked about their level of agreement using a five-point likert-type scale, ranging from strongly disagree to strongly agree. There were thirty instruments to measure OCB, with the dimension consisting of altruism, conscientiousness, sportsmanship, courtesy, civic virtue (Podsakoff, Ahearne, & MacKenzie, 1997; Dyne, Graham & Dienesch, 1994), twenty two questions to measure the personality with the dimensions consisting of conscientiousness, extraversion, agreeableness, emotional stability and openness to experience (Hogan & Holland, 2003), twelve questions of instrument for grit with dimensions consisting of consistency of interest and perseverance of effort (Duckworth *et al.*, 2007; Duckworth and Quinn, 2009) and seventeen instruments for measuring the job involvement (Kanungo, 1982).

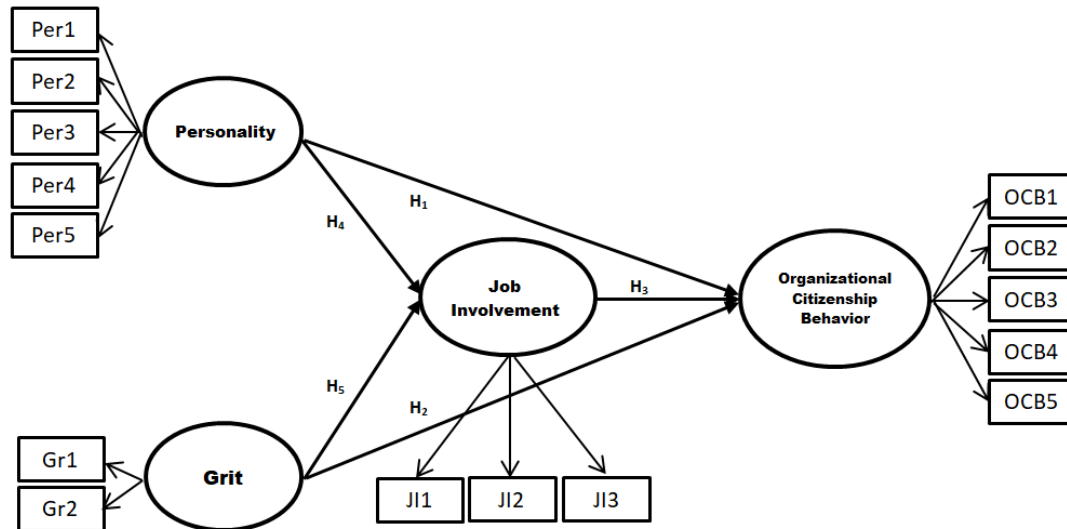
To validate the instrument items on the questionnaire, a measurement model was implemented in order to evaluate the relationships between indicators and constructs, by assessing reliability and validity. Indicator reliability was measured by referring to loading factor with a minimum limit of 0.4, considering that instrument items were the development of standard indicators. Internal consistency reliability was assessed by composite reliability and cronbach alpha, with a minimum limit of 0.7. Furthermore, to measure the convergence validity can be guided by the average variance extracted (AVE) with a minimum limit of 0.5 and for discriminant validity determined by using the square root of AVE and correlation between constructs.

Model and Data Analysis

Based on literature review and related theories, this study estimated the causality relationship between personality and grit to OCB with job involvement as single-mediator. This empirical

model analyzed by using causality model of Structural Equation Modeling – Partial Least Squares (SEM-PLS) with WarpPLS 5.0.

Figure 1. Causality Model of SEM-PLS



There were three steps in analyzing the causality relationship between exogenous variables to endogenous variables. *First*, direct effect estimation between personality, grit and job involvement to the OCB. *Second*, direct effect estimation between personality and grit to the job involvement. *Third*, indirect effect estimation between personality and grit on the OCB mediated by job involvement.

Hypotheses

Based on the research questions and the empirical model proposed, the hypotheses are built:

- H₁. personality of lecturer will be positively related to level of OCB
- H₂. grit of lecturer will be positively related to level of OCB
- H₃. job involvement of lecturer will be positively related to level of OCB
- H₄. job involvement mediated the relationship between personality and OCB
- H₅. job involvement mediated the relationship between grit and OCB.

Findings

To test the hypotheses, a structural equation modeling with partial least squares (PLS) approach was employed because of this model able to handle multiple dependent and independent variables simultaneously. PLS was also considered suitable because it can handle relatively small sample sizes and multicollinearity among independent variables. The objective of the structural model using a PLS approach is to maximize the variance explained by variables in the model using R-Square as the goodness-of-fit measure (Chin & Newsted, 1999).

Model fit

This study focused on testing the relationship between latent variables through a causality model with a single mediator. Because this study was strictly confirmatory, the indicators on the model fit did not become so important. However, table 1 showed some indicators that supported the purpose of the study, that was investigating the influence of personality and grit on OCB and testing job involvement as a mediating variable in the relationship between personality and grit to OCB.

Table 1

Model fit and quality indices

Indicators	value, p-value, category
Average path coefficient (APC)	0.360, p value < 0.001
Average R-squared (ARS)	0.417, p value < 0.001
Average adjusted R-squared (AARS)	0.405, p value < 0.001
Average block VIF (AVIF)	1.353, acceptable if ≤ 5 , ideally ≤ 3.3
Average full collinearity VIF (AFVIF)	1.560, acceptable if ≤ 5 , ideally ≤ 3.3
Tenenhaus GoF (GoF)	0.498, small ≥ 0.1 , medium ≥ 0.25 , large ≥ 0.36

source: primary data processed, 2018

Based on the model fit, it can be seen that the model was quite good and fulfilled the criteria statistically. Average path coefficient (APC) which showed the average value of the estimated coefficient for each path, categorized as low, equal to 0.360 (p value < 0.001). Even though it was in the low category, this APC can be accepted because this study did not focus on the size of the contribution but on testing the hypothesis of the relationship between latent variables.

It can be seen that the average R-squared (ARS) was 0.417 (p value < 0.001) and the average adjusted R-squared (AARS) was 0.405 (p value < 0.001). Although this indicator was in the moderate category, it can be concluded that the predictor of the model was able to explain the

variance. Based on the Average block VIF (AVIF) of 1,353 and the Average full collinearity VIF (AFVIF) of 1.560, it can be concluded that the model was free from the problem of collinearity. The results also showed that the model had a large prediction level with the Tenenhaus GoF of 0.498. Furthermore, the result for this study was statistically presented below, with stages covering measurement model analysis for testing validity and reliability and then structural model analysis to test all the hypotheses.

Measurement model analysis

The measurement model analysis was used to evaluate the relationship between indicators and constructs by assessing reliability and validity. To measure indicators reliability can be guided by loading factors while internal consistency reliability was measured by composite reliability and cronbach's alpha. To measure convergence validity can be guided by average variance extracted (AVE), while for discriminant validity can be used squared root of AVE and correlation between constructs. The results of calculating the loading factor for the indicators were shown in table 2. To get a fit model, the loading factors were smaller than 0.4 have been removed and the impact of removal was the increasing for the AVE and composite reliability above the threshold. Hair and Sarstedt (2011) suggested the solution for the loading conditions above 0.70 cannot be achieved, especially for newly developed questionnaires, the loading between 0.4 - 0.7 must still be considered.

Table 2
Loading Factor

OCB	Loading Factor	Personality	Loading Factor	Grit	Loading Factor	Job Involvement	Loading Factor
OCB1	0.923	Per1	0.701	Gr1	0.938	JI1	0.612
OCB2	0.828	Per2	0.641	Gr2	0.945	JI2	0.745
OCB3	0.710	Per3	0.894	Gr3	0.929	JI3	0.636
OCB4	0.827	Per4	0.837	Gr4	0.470	JI4	0.725
OCB7	0.717	Per5	0.698	Gr5	0.932	JI5	0.566
OCB8	0.666	Per6	0.745	Gr7	0.890	JI6	0.718
OCB9	0.765	Per8	0.700	Gr8	0.824	JI7	0.733
OCB10	0.610	Per9	0.733			JI8	0.791
OCB11	0.690	Per10	0.664			JI9	0.773
OCB15	0.926	Per11	0.543			JI10	0.718
OCB16	0.848	Per14	0.881			JI11	0.797
OCB17	0.902	Per15	0.678			JI12	0.748
OCB18	0.895	Per16	0.703			JI13	0.703
OCB19	0.847	Per17	0.721			JI14	0.738
OCB20	0.685	Per18	0.748			JI15	0.700

OCB21	0.637	Per19	0.708	Jl16	0.789
OCB22	0.601	Per20	0.670		
OCB24	0.720	Per22	0.800		
OCB25	0.635				
OCB26	0.816				
OCB28	0.857				
OCB29	0.753				
OCB30	0.916				

Based on table 3, it can be seen that the composite reliability for all of variables were above 0.9, the cronbach's alpha for all the variables were greater than 0.9 and the average variance extracted (AVE) were also greater than 0.5 for all the variables. The criteria of composite reliability, cronbach's alpha and AVE achieved statistically. Fornell and Larcker (1981) required the composite reliability and cronbach's alpha must be above 0.7 for reliability and AVE must have criteria above 0.5. Furthermore, the criteria of the discriminant validity has been achieved statistically with the square root of AVE was 0.776 for the OCB, 0.721 for job involvement, 0.727 for personality and 0.849 for grit. There were no redundant or offending indicators for all these variables.

Table 3

Composite Reliability, Cronbach's Alpha and AVE

Latent Variable	Composite Reliability	Cronbach's alpha	AVE
Organizational Citizenship Behavior	0.971	0.968	0.602
Job Involvement	0.945	0.938	0.521
Personality	0.953	0.948	0.545
Grit	0.972	0.966	0.775

Testing of Hypotheses

The direct effects of personality, grit and job involvement to OCB were 0.384 ($p < 0.01$), 0.315 ($p < 0.01$) and 0.387 ($p < 0.01$). Thus, the hypothesis H₁.personality of lecturer will be positively related to level of OCB, H₂.grit of lecturer will be positively related to level of OCB and H₃.job involvement of lecturer will be positively related to level of OCB, all were supported by the model. R-Square was 0.330 and it can be concluded that 33% of the variance can be explained by predictors. The results showed the direct effect model had a moderate categorized predictive level.

For the path of personality - job involvement - OCB, there was a positive influence of personality on job involvement (coefficient = 0.467; $p < 0.01$) and job involvement also had a positive influence on the OCB (coefficient = 0.428; $p < 0.01$). Although the direct relationship

between personality and the OCB remained significant (coefficient = 0.164; $p < 0.01$), this path coefficient decreased from 0.384 to 0.164. Thus, job involvement only partially mediated the relationship between personality and the OCB. Furthermore, for the path of grit - job involvement - OCB, there was a positive influence of grit on job involvement (coefficient = 0.184; $p < 0.01$) and also the positive influence of job involvement on the OCB (coefficient = 0.428; $p < 0.01$). The direct relationship between grit and the OCB was also observed to be significant (coefficient = 0.249 ; $p < 0.01$). Thus, job involvement also mediated partially the relationship between grit and the OCB.

Table 4
PLS Results for Direct Effect and The Mediating Effect Model

Direct Effect		
Variables	Path to	OCB
Personality		0.384***
Grit		0.315***
Job Involvement		0.387***
R ²		0.330
Mediating Effect		
Variable	Path to Job Involvement	OCB
Personality	0.467***	0.164***
Grit	0.184***	0.249***
Job Involvement		0.428***
R ²	0.330	0.470

***Significant at $p < 0.01$ **Significant at $p < 0.05$ *Significant at $p < 0.10$.

To ensure further the effect of the partial mediation, it was necessary to do calculations using the Variance Accounted For (VAF). Hair and Sarstedt (2011) recommended the categories of the VAF which above 80% as full mediation, in the range of 20% - 80% as partial mediation and for VAF less than 20% as no mediating effect.

Table 5
Calculations of the Variance Accounted For (VAF)

Path of Personality - Job Involvement – OCB	
Indirect Effect	0.200
Personality → Job Involvement → OCB	
Direct Effect	0.384
Personality → OCB	
Total Effect	0.584
VAF = Indirect Effect/Total Effect	0.342
Path of Grit - Job Involvement - OCB	
Indirect Effect	0.079
Grit → Job Involvement → OCB	
Direct Effect	0.315
Grit → OCB	
Total Effect	0.394
VAF = Indirect Effect/Total Effect	0.201

Based on the calculation of the VAF in table 5, it can be observed that the VAF for the path of personality – job involvement – OCB was 0.342 ($p < 0.01$), which meant the job involvement was a partial mediator for the relationship between personality with OCB. Then, the VAF was 0.201 ($p < 0.01$) for the path of grit – job involvement – OCB, which also meant that the job involvement partially mediated the relationship between grit and OCB. This finding reinforced the previous calculation on table 4 which concluded that job involvement only mediated partially the personality and grit to OCB. Thus, hypotheses H₄ job involvement mediated the relationship between personality and OCB, and H₅ job involvement mediated the relationship between grit and OCB, both supported by findings.

Discussion, Conclusion and Implications

Discussion

Empirically, this research proved the influence of personality and grit on OCB of lecturers, and job involvement was a partial mediator for the relationship between personality and grit to OCB. This study had analyzed the studies about OCB which in the past were more popular in business institution. This study had elaborated the Mahdiun, Ghahramani and Sharif (2010) and Leephaijaroen (2016) which recommended a challenge to test more further about personality as a predictor of OCB in the college. This finding also examined the grit as a predictor of the OCB, which in the previous studies predicted to be similar to personality (Rimfeld *et al.*, 2016; Ferrell, 2017) and affected someone's extra role (Datu and King, 2015; Zhou, 2016). However, the placement of grit as a predictor of OCB still required more the empirical testing in future research, especially for cases in non-profit organizations such as universities.

In a theoretical perspective, the finding had analyzed the position of job involvement as a mediating variable in the relationship between personality and grit on OCB, which in the previous studies was not explicitly placed as a mediating variable. The position of job involvement as a partial mediator was elaborated from previous findings that have examined the relationship of personality on OCB (Mahdiun, Ghahramani and Sharif, 2010; Leephaijaroen, 2016), the relationship of grit and OCB (Datu and King, 2015; Zhou, 2016), the influence of job involvement on OCB (Nwibere, 2014; Ueda, 2014), the relationship of personality on job involvement (Liao and Lee, 2009; Eswaran, Islam and Yusuf, 2011) and also Suzuki *et al.*, (2015) which identified

grit as a strong predictor for work performance. Although the indirect effect of job involvement was not large enough, job involvement was significantly proven as a mediating variable in the relationship between personality and grit to OCB.

In a practical perspective, this finding was really useful in the development of internal processes in universities which for various reasons were very difficult in increasing the extra role of their lecturers. This study has elaborated Eyupoglu (2016) which recommended the importance of a university to be knowledgeable of factors that affected the academic staff extra roles of higher educational institutions, because OCB was an important factor for institutions if they want to survive. Personality and grit had a direct effect on OCB, but the influence of these two variables was also mediated by job involvement. The enhancement in the potential of personality and grit will increase the job involvement, which will be reflected in the form of attitudes such as active participation in work, showing a work as something valuable and regarding a job as important thing. Furthermore, the increase in job involvement will lead to an increase in the extra roles of lecturers. Thus, this finding recommended the importance of controlling of job involvement in efforts to improve OCB through enhancing the personality and grit of lecturers.

By elaborating more further on the indicators in each construct, there were several indicators that were dominant in each construct in the model. Based on its urgency, personality was a stronger predictor than grit. The policy of increasing lecturers' extra-roles in universities that pay attention to this urgency, which was accompanied by efforts to increase job involvement, was the best strategy to improve OCB. Furthermore, this result recommended "awareness" as a part of the personality that was very dominant in determining the extra role.

Grit, as a variable that was originally considered an extension of personality, was a unique factor. Although the direct effect of grit on OCB was not as large as personality, grit remained a predictor of OCB, directly or through job involvement. The dominant instrument in the grit variable was "perseverance of effort". To create a "gritty lecturer" is not easy, because grit will only be created in the long term. If the university's internal process are able to maintain the continuity of grit for each lecturer, then it does not become an obstacle for universities to create extra roles of their lecturers.

Conclusion, Limitation and Implications

Based on the development of theory and the conclusions of the research findings, it can be stated that personality and grit were two strong predictors of OCB. Further testing of the role of job involvement as a mediator in the causal relationship between personality and grit to OCB proved that job involvement was a partial mediator for the relationship between personality and grit to OCB. In a theoretical perspective, this finding proved the argument about the relationship between personality, grit and OCB and extended the theoretical model about the mediating effects of job involvement in this causal relationship. The increase in lecturers' OCB was not necessarily directly determined by the personality and grit of lecturers, but it was mediated by job involvement. There was a role of job involvement affecting the effectiveness of personality and grit in determining the achievement of OCB lecturers. Apart from efforts to optimize personality and grit, the higher education manager must ensure efforts to increase the job involvement of lecturers in internal processes.

One limitation of the study was the relatively small sample size of 132 lecturers at eight units of polytechnic of the ministry of industry in Indonesia. Considering the large number of lecturers at universities in Indonesia and the sample which was only limited to vocational higher education, of course it was very small. In relation to the position to generalize the research findings, there needs to be a larger sample in future studies.

Based on the above empirical findings, it can be recommended several efforts to enhance the extra role of lecturers in universities and these recommendations are of course not limited to the Indonesian context. *First*, because of the stronger direct influence between personality and grit on OCB, this finding can be a reference in improving the lecturer performance evaluation model in higher education. All policy efforts aimed at increasing the OCB in higher education must be directed at strengthening the personality and grit dimensions. Strengthening the aspects of conscientiousness, extraversion, agreeableness, emotional stability, openness to experience, consistency of interest and perseverance of effort on all lecturers' development policies are key elements to increase the extra role of lecturers. *Second*, Although job involvement only partially mediated the relationship of personality and grit to OCB, intensive efforts must still be made by leaders in universities to improve the job involvement. Many lecturers without structural positions at universities, are often only oriented to fulfill the minimum standards of performance achievement and ignore the more potential they can create. Personality and grit are two things that

have the potential to increase OCB, but this will be reflected first in job involvement of lecturer such as being active in work, prioritizing work from other things and consider their work as a lecturer as important thing.

References

- Barrick, M. R., Parks, L., & Mount, M. K. (2005). Self-monitoring as a moderator of the relationships between personality traits and performance. *Personnel Psychology*, *58*, 745–767. <https://doi.org/10.1111/j.1744-6570.2005.00716.x>
- Cappelli, P., & Rogovsky, N. (1998). Employee Involvement and Organizational Citizenship: Implications for Labor Law Reform and “Lean Production”. *51(4)*, 633–653. <https://doi.org/10.1177%2F001979399805100405>.
- Carmeli, A. (2005). Exploring determinants of job involvement: An empirical test among senior executives. *International Journal of Manpower*, *26(5)*, 457–472. <https://doi.org/10.1108/01437720510615143>.
- Chin, W. W., & Newsted, P. R. (1999). *Structural equation modeling analysis with small samples using partial least squares*. In R. H. Hoyle (Ed.), *Statistical strategies for small sample research*. Thousand Oak: Sage Publication.
- Constantine, G. R. (2017). The Biological Basis of Performativity of Identity-Linking Scientific Evidence to Social Theory. *Journal of Ethnic and Cultural Studies*, *4(2)*, 88-95.
- Culin, K. R. Von, Tsukayama, E., & Duckworth, A. L. (2014). Unpacking grit : Motivational correlates of perseverance and passion for long-term goals. *The Journal of Positive Psychology*, (2008), 1–7. <https://doi.org/10.1080/17439760.2014.898320>
- Datu, J. A. D., Valdez, J. P. M., & Ronnel B. King. (2015). Perseverance counts but consistency does not ! Validating the short grit scale in a collectivist setting. *Current Psychology*, *35(1)*, 121–130. <https://doi.org/10.1007/s12144-015-9374-2>
- Duckworth, Angela L., Christopher Peterson., M. D. M. and D. R. K. (2007). Grit : perseverance and passion for long-term goals, *92(6)*, 1087–1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
- Duckworth, A., & Gross, J. J. (2014). Self-control and grit: related but separable determinants of success. *Current Directions in Psychological Science*, *23(5)*, 319–325. <https://doi.org/10.1177/0963721414541462>
- Duckworth, Angela L, Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *92(6)*, 1087–1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
- Duckworth, Angela Lee, & Quinn, P. D. (2009). Development and validation of the short grit scale (Grit – S). *Journal Of Personality Assessment*, *91(2)*, 166–174. <https://doi.org/10.1080/00223890802634290>
- Dyne, L. Van, Graham, J. W., Dienesch, R. M., Graham, J. W., & Dienesch, R. M. (1994). Organizational citizenship behavior: construct redefinition , measurement , and validation. *The Academy of Management Journal*, *37(4)*, 765–802. <https://doi.org/10.2307/256600>
- Elanain, H. A. (2007). Relationship between personality and organizational citizenship behavior :

- Does personality influence employee citizenship ? *International Review of Business Research Papers*, 3(4), 31–43.
- Eswaran, S, Islam, M. A., & Yusuf, D. H. M. (2011). A study of the relationship between the big five personality dimensions and job involvement in a foreign based financial institution in Penang. *International Business Research*, 4(4), 164–175. <https://doi.org/https://doi.org/10.5539/ibr.v4n4p164>
- Eyupoglu, S. Z. (2016). The organizational citizenship behaviour of academic staff in north cyprus. *Procedia Economics and Finance*, 39(November 2015), 701–704. [https://doi.org/10.1016/S2212-5671\(16\)30280-5](https://doi.org/10.1016/S2212-5671(16)30280-5)
- Fauziah, N., & Kamaruzaman, J. (2009). Levels of job satisfaction amongst Malaysian academic staff. *Asian Social Science*, 5(5), 122–128. <https://doi.org/10.5539/ass.v5n5p122>
- Ferrell, B. (2017). Identifying grit in existing personality and other individual differences taxonomies. In *paper presented at presented at the 2017 SIOP conference*. Hogan Assessment Systems, Inc.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Funder, D. C. (2001). Personality. *Annual Review Psychology*, 52(1), 197–221.
- Gheisari, F., Sheikhy, A., & Derakhshan, R. (2014). Explaining the relationship between organizational climate, organizational commitment, job involvement and organizational citizenship behavior among employees of khuzestan gas company. *Mediterranean Journal of Social Sciences*, 5(20), 2986–2996. <https://doi.org/10.5901/mjss.2014.v5n20p2986>
- Greenberg, J., & Robert A Baron. (2008). *Behavior in organizations: understanding and managing the human side of work* (8th edition). Prentice Hall International: New Jersey.
- Hair, J. F. R., C.M., & Sarstedt, M. (2011). “PLS-SEM: Indeed a Silver Bullet.” *Journal of Marketing Theory and Practice*, 19(2), 139–151.
- Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job performance relations: A socioanalytic perspective. *Journal of Applied Psychology*, 88(1), 100–112. <https://doi.org/10.1037/0021-9010.88.1.100>
- Ilies, R., Fulmer, I. S., Spitzmuller, M., & Johnson, M. D. (2009). Personality and citizenship behavior: the mediating role of job satisfaction *Ilies*, 94(4), pp. 945–959. <https://doi.org/10.1037/a0013329>.
- Ion, A., Mindu, A., & Gorbănescu, A. (2017). Grit in the workplace: Hype or ripe? *Personality and Individual Differences*, 111, 163–168. <https://doi.org/10.1016/j.paid.2017.02.012>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724. <https://doi.org/10.2307/256287>
- Kanungo, R. N. (1982). Measurement of job and work involvement”. *Journal of Applied Psychology*, 67(3), 341–349. <https://psycnet.apa.org/doi/10.1037/0021-9010.67.3.341>
- Karakus, M. (2018). The Moderating Effect of Gender on the Relationships between Age, Ethical Leadership, and Organizational Commitment. *Journal of Ethnic and Cultural Studies*, 5(1), 74-84.
- Katz, D. (1964). The motivational basis of organizational behavior. *Behavioral Science*, 9(2), 131–146. <https://doi.org/10.1002/bs.3830090206>

- Lawler, E. E. (1986). High involvement management: Participative strategies for improving organizational performance. *San Francisco: Jossey-Bass.*
- Leephaijaroen, S. (2016). Effects of the big-five personality traits and organizational commitments on organizational citizenship behavior of support staff at Ubon Ratchathani Rajabhat University, Thailand. *Kasetsart Journal of Social Sciences*, 37(2), 104–111. <https://doi.org/10.1016/j.kjss.2015.03.002>
- Liao, C., & Lee, C. (2009). An empirical study of employee job involvement and personality traits : The case of Taiwan. *International Journal of Economics and Management*, 3(1), 22–36. <https://doi.org/10.1016/j.sbspro.2012.05.346>
- Lodahl, M. T., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49(1), 24–33.
- Mahdiun, R., Ghahramani, M., & Sharif, A. R. (2010). Explanation of organizational citizenship behavior with personality. *Procedia - Social and Behavioral Sciences*, 5(2), 178–184. <https://doi.org/10.1016/j.sbspro.2010.07.069>
- McKenna, E. (2006). *Business Psychology and Organisational Behaviour* (4th edition). New York: Psychology Press.
- Neuman, G. A., & Kickul, J. R. (1998). Organizational citizenship behaviors: Achievement orientation and personality. *Journal of Business and Psychology*, 13(2), 263–279. <https://doi.org/http://dx.doi.org/10.1023/A:1022963108025>
- Nwibere, B. M. (2014). Interactive relationship between job involvement, job satisfaction, organisational citizenship behaviour, and organizational commitment in nigerian universities. *International Journal of Management and Sustainability*, 3(6), 321–340. <https://doi.org/10.18488/journal.11/2014.3.6/11.6.321.340>
- Organ, D. W. (1994). Personality and organizational citizenship behavior. *Journal of Management*, 20(2), 465–478. [https://doi.org/https://doi.org/10.1016/0149-2063\(94\)90023-X](https://doi.org/https://doi.org/10.1016/0149-2063(94)90023-X)
- Organ, D. W. (1997). Organizational citizenship behavior: It's construct cleanup time. *Human Performance*, 10(2), 85–97. https://doi.org/10.1207/s15327043hup1002_2
- Passer, M. W., & Ronald E. Smith. (2007). *Psychology: The Science of Mind and Behavior*. New York: McGraw-Hill.
- Patki, S. M., & Abhyankar, S. C. (2016). Big Five personality factors as predictors of organizational citizenship behavior : a complex interplay. *The International Journal of Indian Psychology*, 3(2), 136–146. <https://doi.org/10.25215/0302.168>
- Paullay, I. M., Alliger, G. M., & Stone-Romero, E. F. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology*, 79(2), 224–228. <https://doi.org/10.1037/0021-9010.79.2.224>
- Peleașă, S. (2018). Grit utility in explaining job and contextual performance. *Studia Doctoralia. Psychology and Educational Science*, 9(15), 54–64.
- Pisheh, M. H. M. (2011). A study of the relationship between locus of control and job involvement in Iran public employees. *African Journal of Business Management*, 5(34), 13217–13226. <https://doi.org/https://doi.org/10.5897/AJBM11.1482>
- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of work group performance. *The Journal of Applied Psychology*, 82(2), 262–270. <https://doi.org/10.1037/0021-9010.82.2.262>

- Rashidi, R. P., Gheisari, F., & Farokhian, A. (2014). Explaining the relationship between organizational commitment, job involvement and organizational citizenship behavior among employees of khuzestan gas company”.*Indian Journal of Fundamental and Applied Life Sciences*, 4(4), 150–158.
- Rimfeld, K., Kovas, Y., Dale, P. S., & Plomin, R. (2016). True grit and genetics: predicting academic achievement from personality. *J Pers Soc Psychol.*, 111(5), 780–789. <https://doi.org/doi:10.1037/pspp0000089>
- Robbins, S. P., & Judge, T. A. (2008). *Organizational Behavior* (13th ed.). New York: Pearson Education, Inc., publishing as Prentice Hall.
- Schnake, M., Cochran, D., & Dumler, M. (1995). Encouraging organizational citizenship: the effect of job satisfaction, perceived equity and leadership. *Journal of Managerial Issues*, 7(2), 209–221.
- Suzuki, Y., Tamesue, D., Asahi, K., & Ishikawa, Y. (2015). Grit and work engagement: A cross-sectional study. *PLoS ONE*, 10(9), 1–11. <https://doi.org/10.1371/journal.pone.0137501>
- Ueda, Y. (2014). Organizational citizenship behavior in a Japanese organization : The effects of job involvement , organizational commitment, and collectivism. *Journal of Behavioral Studies in Business*, 1–14.
- Zhou, K. (2016). Non-cognitive skills: definitions, measurement and malleability. In *Background paper prepared for the 2016 Global Education Monitoring Report to UNESCO*.